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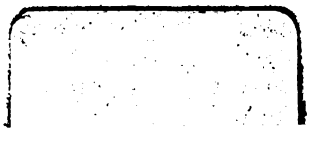
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ASTOR, LENOX AND TILDEN FOUNDATIONS

Annual Report

of the

School Committee

of the

City of Pawtucket, R. I.

for the

Year Ending June 26th, 1896.



Pawtucket:
Lee & Upham, Book and Job Printers.
1896.

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ANNUAL REPORT

OF THE

SCHOOL COMMITTEE

OF THE

CITY OF PAWTUCKET, R. I.,

FOR THE YEAR ENDING JUNE 26,

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SCHOOL OFFICERS.

SCHOOL COMMITTEE:

HENRY BARKER, Chairman.

	Residence.	Term Expires.
SUSAN C. KENYON,	733 Pleasant street,	1899
ALONZO E. PIERCE,	138 Clay street,	1899
LOWELL EMERSON,	156 Walcott street,	1899
HENRY BARKER,	533 Weeden street,	1898
WILLIAM L. COOP,	1054 Main street,	1898
EDWARD W. BLODGETT,	71 Park Place,	1898
EDWARD P. TOBIE,	262 Broadway,	1897
WILLIAM E. TOLMAN,	126 Prospect street,	1897
WALTER G. HARTFORD,	166 Garden street,	1897

SUB-COMMITTEES:

Qualifications—E. P. TOBIE, W. G. HARTFORD, LOWELL EMERSON.

Books—W. E. TOLMAN, SUSAN C. KENYON, W. L. COOP.

Property—W. G. HARTFORD, E. W. BLODGETT, A. E. PIERCE.

Finance—LOWELL EMERSON, A. E. PIERCE, W. E. TOLMAN.

Music and Physical Training—A. E. PIERCE, W. L. COOP, SUSAN C. KENYON.

Promotions and Truancy—SUSAN C. KENYON, W. L. COOP, E. P. TOBIE.

Evening Schools—W. L. COOP, LOWELL EMERSON, A. E. PIERCE.

Evening Drawing and Evening High Schools—E. W. BLODGETT, W. G. HARTFORD, W. L. COOP.

Training School and Kindergarten—E. P. TOBIE, LOWELL EMERSON, W. E. TOLMAN.

Superintendent of Schools: GILMAN C. FISHER.

Clerk of School Committee: GEORGE E. NICHOLAS.

Residence of Superintendent, 110 Central avenue; Office, Room 3, third floor of Music Hall Building. Office hours from 12 to 12.30, and from 4.30 to 5.30 on school days. Office open daily, except Saturdays, from 8 to 12.30, and from 3.30 to 5.30 *during term time;* also, from 9 to 12.30, and from 3.30 to 5.30 *during vacation.* Clerk of Superintendent, FLORENCE E. DAVIS.

Report of School Committee.

OFFICE OF THE SCHOOL COMMITTEE,
PAWTUCKET, July 14, 1896.

To the City Council of the City of Pawtucket:

GENTLEMEN:—In presenting their annual report the School Committee would call the attention of your honorable body to the further need of more school buildings in our city. Although much has been done the past two years in building and enlarging school houses, yet there is a pressing want for more rooms in some of our school districts.

HANCOCK STREET DISTRICT.

Owing to the lack of accommodations in the Hancock street district and the use of the old High street grammar school building for high school purposes during the past year, the Church Hill and Cherry street schools have been crowded to overflowing. During the coming year the Cherry street school will be relieved, but the crowding at Church Hill must continue until accommodations *within* the Hancock street district are provided for the pupils of the upper grades living in the northwestern part of the city.

At the close of the last term, June 26, there were belonging in the Hancock street, Laurel Hill, Fairlawn and Smithfield avenue schools, 206 pupils of the first grade, 127 of the second, 95 of the third, 82 of the fourth and 46 of the fifth; but the sixth, seventh, eighth and ninth grades, were not represented in these schools,

being crowded on to another part of the city. This discrimination against a given section is not just or right. The educational advantages of the city should be evenly distributed, and all conditions detrimental to the health of the teacher or pupil or for any other reason unfavorable to good work, should be removed.

We recommend, therefore, the erection, without delay, of an eight-room building on the lot already purchased and adjoining the site of the present Hancock street school. This should be in readiness by spring if possible.

HIGH STREET DISTRICT.

We recommend, also, the erection of a four-room building of brick on the site of the old church on High street, which has outlived its time and purpose, and should be pulled down.

OTHER DISTRICTS.

Pawtucket is growing rapidly, and all the other districts of the city will soon require new buildings. In the Broadway district the first ward room, the attic of the Middle street school, the attic of the Broadway school and all the rooms of the Central avenue school will be required for use in the fall. The four-room addition made during the year to the last-named building was a substantial improvement for which the people in this part of the city had long been suffering.

FAIRLAWN SCHOOL.

This building is a model structure and is appreciated by the residents whom it is intended to serve. It will not be many years before it will be too small, as this section of our city is growing rapidly. We shall fill three rooms at the commencement of the fall term, and there is little doubt of our needing to occupy the whole of the building by the spring term.

LINCOLN AVENUE SCHOOL.

The rebuilding of the two room school house which was destroyed by fire a little more than a year ago, has again met the wants of the people of this neighborhood who, for a considerable time, were entirely deprived of school privileges, owing to the impossibility of renting suitable quarters.

KINDERGARTENS.

The kindergarten cottage on Cherry street is now well advanced and will be ready for use in the fall. Your committee believe in special buildings of this kind and desire to see others erected in time in different parts of the city.

ALL-GRADE SCHOOLS.

Your committee have found that these schools are of great advantage to the working pupils of the city, and have accordingly made arrangements to open one more in the fall. This is to be located in the Washington street school. No additional expense is involved, as other schools in this section of the city are so relieved in point of numbers that one less will be required. The Hancock street school should have two rooms of this character, but it will not be possible to provide them until the new building is ready. We hope your honorable body will so legislate as to make it possible for us to open them in the spring or at the latest in the fall of '97.

THE TRAINING SCHOOL.

This school fills a very important place in the educational system of the city, and with its efficient principal and accomplished corps of teachers is doing valuable work. The rules and regulations governing the school have been revised during the year, and

the period of training required on the part of those preparing to be teachers extended to two years. These changes were carefully considered and will, it is believed, be conducive to the advancement of our schools in the future.

THE HIGH SCHOOL.

This school is doing an excellent work, and will be in a position the coming fall to meet as never before the educational requirements of the city. We have long waited for the more favorable conditions which now seem to be immediately before us with every prospect of fulfillment in September. In anticipation of the opportunity for enlarging the scope of the school at that time, a new course of study, covering four years, has been prepared for the commercial and industrial department, so that there will be no delay in starting. This will include stenography and typewriting. It is believed that hereafter the youth of the city will be able to receive a good business training in our high school and qualify themselves for taking important positions on graduating, as well as for entering with distinction, as they have hitherto done, the higher institutions of learning. So far as material conditions are concerned the Pawtucket High School has before it an outlook it was never permitted to enjoy in the past, and no pains will be spared to make it take rank among the best institutions of its kind in the country.

The new building is one of which the city has every reason to be proud. It contains ten large school rooms, a library and several small recitation and other rooms on the first and second floors, a fine assembly hall, three laboratories and a room for drawing admirably adapted to its purpose, on the third floor; also a gymnasium in the basement. We congratulate the citizens of Paw-

tucket upon the possession of a building so well planned and substantially built and so attractive withal.

The reports of Superintendent, Principals and Supervisors you will find in the following pages. These reports throw much light upon the schools, and we would respectfully call your attention to them.

In behalf of the Committee,

HENRY BARKER,

Chairman.

Report of the Superintendent.

Miss Kenyon and Gentlemen of the School Committee:

I have the honor to submit herewith my fourth annual report:

STATISTICS.

I.—*Population.*

Population of city, census of 1890,		27,633
State Census of 1895,		32,573
Number of children by school census, January, 1896,		6670
In public schools,	4050	
In parochial schools,	1818	
In private schools,	44	
Not in school,	758	

II.—*School Houses.*

Number of school houses,		23
Number of school rooms in school houses,		95
Number of school rooms not in school houses,		8
Green building, North Union street,	5	
House at Fairlawn,	2	
Fourth ward room,	1	
Number of unoccupied school rooms,		4
Summit street,	2	
Prospect street,	1	
Smithfield avenue,	1	
Number of sittings,		4971

III.—*Day Schools.*

Number of teachers employed in day schools including assistants (actual number in service at close of year),		120
High School,	10	
Hancock street grammar district,	14	
Church Hill grammar district,	22	
Garden street grammar district,	26	
Grove street grammar district,	24	
Broadway grammar district,	24	
Increase over previous year,		4
Number of assistants employed below the high school,		17
Head assistants for grammar schools,	3	
In primary grades,	10	
In kindergarten,	4	
Number of special teachers (music 1, drawing 1, nature study and penmanship 1, physical training 1),		4
Whole number of pupils enrolled during the year,		5449
Boys,	2842	
Girls,	2607	
Average number belonging,		3724
Increase over previous years,		132
Average daily attendance,		3355
Increase over previous year,		64
Number belonging on last day of school year		3755
Increase over previous year,		201
Divided by grades as follows:		
Kindergarten,	144	
1st Grade,	982	
2d Grade,	646	

3d Grade,	477
4th Grade,	430
5th Grade,	274
6th Grade,	216
7th Grade,	140
8th Grade,	106
9th Grade,	114
High School,	226

IV.—*Evening Schools.*

Number of evening schools,		5
(Evening Drawing, Evening High, Hancock street, Garden street, Broadway.)		
Length of each school in evenings,	60, 59, 59, 60, 59	
Number of different teachers employed,		30
Males,	17	
Females,	13	
Average number of teachers employed,		24
Number of different pupils enrolled,		680
Boys,	480	
Girls,	200	
Number of pupils over fifteen years of age,		440
Average number of pupils belonging,		391
Average attendance,		277

THE NINTH GRADE.

The ninth grade as a grammar grade is supernumerary. We have learned to do the work of nine grades in eight, and either a wide range of high school studies should be put into the ninth grade or the ninth grade should be put into the high school. Local conditions such, for instance, as lack of room in the high

school, inconvenience of location or the existence of distinct centres of population within a given area may make it desirable to pursue the former course; but here in Pawtucket, with a new high school building large enough for present uses and situated not wholly out of range for the accommodation of all sections of a fairly compact city, it is better to pursue the latter course.

The question of nine grades or eight grades below the high school is simply a question of resisting or promoting a great national movement, which has for its object, first, the interrelation of the grammar schools and the high schools of the country so that there will be no break between them; second, the interrelation of the high schools and colleges (that is, the State universities and all the other higher institutions of learning, including the incorporated institutions of the East) so that in fitting for college or the technical school there will be no perversion or warping of a continuous system, all parts of which meet equally well the requirements of those affected by it. In this movement, a perfect gradation from the kindergarten to the university is sought, a unifying and harmonizing of interests to secure symmetrical teaching and a close adaptation of the work along the whole line. To keep Pawtucket for any great length of time out of a movement fraught with so much good to the people, will be impossible; and it is better to yield to it now, and so derive early advantage from acting in concert with other cities and towns and other trustees of educational interests in the adjustment of relations affecting the well-being of all.

To be out of line with the rest of the country educationally is perhaps as serious as to be out of line with it commercially or socially. Both the report of the Committee of Ten and the report of the Committee of Fifteen, the former of which is perhaps the most remarkable educational document that has ever appeared in

any country as the outcome of associated effort upon a large scale —remarkable for voicing the enlightened sentiment of the day— are expressions of this great national movement and both are based upon eight grades below the high school. Indeed, that is all there are in any natural division of the work or in any scheme of education favored by the leaders of educational thought in the country.

While I do not think that, as a rule, we are over-timid here in Pawtucket in taking new steps, yet we do like, when departures are proposed, to know what others are doing. Chicago, Minneapolis, St. Paul, Detroit, Denver and nearly all the other great cities of the west have eight grades below the high school. Some of the smaller cities promote to the high school from the seventh grade; but west of the Ohio river the eight-grade plan may be said to be all but universal. East of the Ohio river, however, where the grammar schools were built up before the American High School, as it is to-day, was evolved—a school, by the way, that represents no class but is as much as any other a part of the common school system — the nine-grade plan quite generally prevails, although there is a considerable diversity of usage to be observed. Thus, here in New England, we find Milton, Mass., seeking to have six grades below the high school, and Keene, N. H., and Lewiston, Me., still retaining ten, as, indeed, did Pawtucket until four years ago.

The following cities and towns of Massachusetts, having nine grades, have put one or more foreign languages into the ninth grade, together with other high school studies, the introduction being effected as low down sometimes as the seventh: Leominster, Wakefield, Newton, Chelsea, Revere, Brookline, Salem, Braintree, Waltham, Woburn, Watertown, Dedham, Gardner. This is only a partial list. On the other hand, Quincy, Concord, Melrose, Milton,

Beverly, Attleboro and numerous other towns more or less prominent in educational matters have long had eight grades below the high school. So have New Haven, Conn., and Dover, N. H. Lawrence, Mass., has just changed from nine grades to eight, being the first large city in the State to take the step. Central Falls in this State designates its highest grammar grade as the eighth, but divides its first grade into a 1 A and a 1 B, the latter of which has some kindergarten features and in a way corresponds to our kindergarten. Cambridge has five years in its Latin School and a "parallel plan" in the grades by which its high schools may be reached in from seven to nine years. Boston has six years in its Latin schools and admits to them from the sixth grade. It has also an abridged grammar school course making possible the completion of the elementary course in seven years, and it leaves the teaching of foreign languages in the ninth grade optional with the grammar masters. Springfield is moving vigorously and harmoniously in the direction of a lengthened high school and shortened grammar school course. Somerville is considering a number of plans whereby the grammar schools may be rendered less top-heavy and made to connect more closely with the high schools. Fitchburg has put its ninth grade into the high school building as a matter of expediency, but has not yet made it an integral part of the school itself. Bridgeport, Conn., and Medford, Mass., are similarly situated.

These citations are not absolutely necessary, but they are interesting as evidences of an unmistakable drift. What is the motive at the bottom of it? What new conditions have arisen to make it necessary? An answer to these two questions is to be found in the fact that the elementary school, the secondary school and the college have made mutual concessions. Each has yielded something to its neighbor, and in the resulting fusion the ninth

grade, as a grammar grade, has been eliminated,—simply the *grade*, not the work of the grade, which is re-distributed, taken up in a different order, with improved connections, so that as much is accomplished in twelve grades, without crowding, as formerly in thirteen.

With the exception of a part of the arithmetic and a part of the United States history which can be added to advantage to the eighth grade, all the subjects now taught or lately taught in the ninth grade, it would be better to take up in the high school, including general history, bookkeeping, drawing, nature study, advanced physiology, advanced civics. The whole subject of organized capital, including stocks and bonds and other topics in advanced arithmetic now taught in the ninth grade should be deferred to a later period, with the exception perhaps of such simple statements and problems as are very easily understood. The same is true of considerable portions of United States history, embracing subjects upon which there is large obscuration in the minds of adults, such, for example as bimetallism and the tariff question in all its phases.

It may be urged that the reviews of the ninth grade are valuable. But there are two ways of reviewing a subject: first, by going directly over it, and, second, by taking up other subjects to throw side-lights upon it. The former is preferable if you are cramming for examination, and the latter if you are preparing for life. Geography is reviewed incidentally in many ways in the high school by physical geography, the sciences and history; grammar, by the languages, ancient and modern; arithmetic, by algebra, geometry, astronomy and bookkeeping; and United States history, by general history, civics and political economy.

If a boy is going to college, he should take up Latin as early as the ninth year or earlier. It is not unlikely that in the larger

cities provisions will be made ere long for pupils to take up a foreign language as early as the seventh year. If a boy seeks a scientific education he should not be held back in the grammar schools beyond the eighth year, but should be allowed the advantages of scientific methods as secured through instruction under specialties with access to laboratories—and only so secured. The same is true of a boy seeking a good general business education. At the expiration of that period, he should go where the equipment for actual business practice is adequate and where he can take up bookkeeping, commercial law and kindred subjects under an expert. Whatever the course selected, pupils entering the high school derive an advantage from coming into contact with pupils from the other grammar schools of the city. Indeed, this contact affords an experience with the municipality as a whole that is desirable, if not necessary, as a preparation for citizenship.

Let it be said, however, and strongly emphasized, that it is no fault of the teachers of the ninth grade that a pupil of that grade, as compared with the high school, loses time, no matter what his destination, for they are among the best teachers we have and represent a very high order of teaching talent; but it is because the work is introduced mainly to piece out with—being a little literature, a little music, a little drawing, a little science and so on for a long list of studies, all of which, for ninth grade pupils are as well or better taught in the high school—generally better, because the conditions are more favorable.

I recommend, therefore, the gradual reduction of the number of grades in the elementary course from nine to eight by admitting to the high school during the next two years such pupils of the eighth grade as are found qualified for admission under the new course of study. I should suppose that next June about one-third of the eighth grade would be found so qualified, and a year from next

June perhaps two-thirds. This would give a graduating class of about 125 pupils next year and 150 the year after. Meanwhile I would exercise a little more care in promotions all the way along, so that the average age of the pupils entering the high school would be 14 years and nine months, say, instead of 15 years and five months, as it will be next September. Our high school is about eight months too far away from the people. The average age of the pupils graduating last June was 18 years and eight and one-half months, carrying them forward to a time when they should be in some higher institution or else at work.

I would raise the standard of the high school by securing the abridgement and at the same time the enrichment of the grammar school course as proposed by President Eliot. This involves no difficulty whatever, but is a perfectly simple, reasonable and feasible plan. The ninth grade has already become in good part a branch high school and must, if continued, take on that character completely. If you put it into the high school you effect an economy of time and money and add to the period of productive energy of the youth who pass through our schools, without in the least degree impairing the efficiency of the schools. Indeed by carrying out this plan you raise the standard of all of them for taking too much time to do a thing has a tendency to induce dawdling and to lower the *morale* of the pupils as a body. Under the eight-grade plan the size of the grammar graduating classes would be greatly augmented, and you would send out more well-educated young men and young women to live in the community for the reason that the pupils of the intermediate grades who now drop out in such large numbers because, as they say, "it takes so long to get through!" would be encouraged to keep on. At present from 60 to 70 per cent of the grammar graduates enter the high school. Under the eight-grade plan, from 70 to 80 per cent would enter it.

Of course I have in mind in all this discussion the high school as it is to be in the new building and not what it was forced to be in the old building—a school no longer up on stilts, but brought down and broadened to meet the wants of the people, a school no longer fitting for college merely, but fitting for the workshop and the counting room as well.

I present these opinions now and ask you to reserve your judgment; to wait and see how the new commercial department in the high school turns out and how the eighth grade gets on under the new course of study.

In this connection let me say also, I think it would be well to change the character of the grammar graduation another year and instead of a general participation on the part of the pupils, except for music, to have some distinguished man from abroad address the class. Even if an expense of $50 were incurred for this purpose it would be better than to have the school work of the last two or three months interrupted to such an extent by preparation for a public appearance.

The course of study for the first eight grades is now ready and submitted as a part of this report, after a year and a half of labor expended upon it. It aims to develop technique out of thought under a definite plan of concentration and by so doing to accomplish more for the three R's than we have ever been able to do before. *Whatever the course of study for the niuth grade may be, either in the high school or out of it, if you decide to keep it out, that for the eighth and the lower grades should not be materially changed. I strenously desire that the question of the course of study for the first eight grades above the hindergarten, as now submitted, and the question of retaining the ninth grade in the grammar buildings, may be disassociated, for they do not necessarily or properly have any connection with each other whatever.*

WHAT SHOULD A BOY (OR GIRL) KNOW ON GRADUATING FROM THE GRAMMAR SCHOOL AND WHAT SHOULD HE BE ABLE TO DO.

I He should know the fundamental processes of arithmetic well and be able to add, subtract, multiply and divide both fractions and integers with rapidity and accuracy. He should be well drilled in percentage, interest, square root and its applications, the elements of mensuration and compound numbers. He should know how to make out bills, write receipts and promissory notes, and in bookkeeping he should be able to open and close an individual account in correct form.

II In elementary algebra as a part of arithmetic and in inventional geometry as a part of drawing and arithmetic, he should have acquired, also, a certain additional element of strength available for use in every day life.

III He should be able to read well and get the thought of what he reads. Such a publication as the Youth's Companion should have a charm for him and in its phrasing and subject matter neither the daily newspaper nor the average book should present difficulties to detract especially from his interest in or enjoyment of the same.

IV He should be able to spell all the words he uses, and to write with facility a good plain, round, legible hand.

V He should be able to express himself well and write a good letter, evincing a knowledge of the rules of punctuation and capitalization; and should have acquired familiarity with the ordinary forms of business and social correspondence.

VI In technical grammar he should find it comparatively easy to analyse all sentences whose construction is not especially involved.

VII He should carry clear mental pictures of the principal phy-

sical features of the earth and be as well informed upon political geography in general as the ordinary untraveled adult.

VIII While he should have some knowledge of general history acquired chiefly through reading, he should be well informed upon U. S. history, especially the *action* side of it — the voyages of discovery, the explorations, the early settlement of the country, its conquests and wars; — in short, all those events in which the patriotism and the heroism of the individual stand forth conspicuously.

IX Through music, drawing, nature study and literature, the foundations of a broad general culture should be well laid, and through the study of elementary civics carried on in connection with geography and history a fair idea of our institutions and how we are governed should be gained.

X In the total of acquirements should be included, also, some degree of skill in woodwork or other form of handcraft for the boys and practical housewifery (cooking and sewing) for the girls.

An eight-grade course is all that is needed for the accomplishment of the above.

THE TRAINING SCHOOL

The State of Rhode Island is now erecting and has nearly completed a building for its Normal School, situated near the site of the proposed new railway station in Providence, which, with the land and equipments, will cost nearly half a million of dollars. It is proposed to make this school one of the finest of its kind in the country, and as a commensurate first step is incurred the outlay for this magnificent plant. When this building is ready for occupancy, as it will be in September, 1897, Rhode Island will not be outranked by any State in the Union in the provisions it makes for the professsional training of its teachers. Moreover, these unusual

advantages will be open to our own young people here in Pawtucket and readily available by them. As this city is taxed to maintain the Normal School, and in common with other parts of the State has contributed to erect the building, it seems opportune to inquire at this time whether some change in the management of our training school will not be demanded at the end of the coming year. Permit me to submit my views on this subject.

The State provides a special one-year course in its normal school for such graduates of the high schools of the State as desire to enter city training schools. At present this course is as follows:

First Term—20 Weeks.

Pedagogy—Principles of Instruction.
Methods of Instruction.
- Arithmetic.
- Geography.
- Singing.

Physiology.
Drawing.

Second Term—20 Weeks.

Pedagogy—School Management and Government, History of Education.
Methods of Instruction.
- Reading.
- English.
- Penmanship.
- Drawing.
- Elementary Science.

Civics and History.

Providence avails itself of the advantages thus freely offered and without expense to itself carries on its training school for the first year. Pawtucket should do the same. For the academic work embraced in the above course, we cannot, without incurring

great expense, provide equal advantages. Under specialists, one for each subject, methods of instruction are developed, and pupil teachers coming from all parts of the State have an opportunity not only to review their grammar school studies, but to review them with reference to teaching.

To parallel the full advantages of an institution so favored would be impossible, and I recommend, therefore, that the offer of the State to do your work for you for the first year be accepted. At the beginning of the second or senior year, the ten young ladies who had stood the highest at the normal school would be received into our training school for psychology and child study, observation of home methods and practice in teaching. By *sub-letting your contract* for the first year, for that is all it really amounts to, you avoid the confusion of two classes and obviate the necessity of employing an assistant teacher (or teachers) for the academic work of the junior year.

Another modification in the working plan of the training school is desirable. The Grove street school should be made simply a *model* school. The pupil teachers should visit the rooms for observation only and not for practice. The work of the regular teachers would thereby be lightened somewhat and they would be relieved of a certain measure of responsibility. In connection with the training school and forming a component part of it, a *practice* school should be created, by placing either at Brook street, Summit street or Division street two rooms without regular teachers, under a critic teacher. The pupil teachers would teach in these rooms under her general oversight and remain long enough to reveal their power or lack of it. At present we do not know for a certainty when they go out to teach, whether the graduates of our training school can control a room or not. A critic teacher at $750 say, displacing two regular teachers at $560 each,

would be a material saving to the city, and under existing circumstances, economy in the management of the training school is demanded. With what will unquestionably be one of the finest normal schools of the country carrying on its work within a five-cent fare of Pawtucket, the training school of Pawtucket should not cost the city a dollar.

I do not wish to convey the impression that I set a low or even a moderate value upon the work of the training school, for, on the contrary, I rate it high, and am convinced that, all things considered, it has been worth to the city all that it has ever cost in the past. Under its successive principals, each possessed in her own way of rare powers, and assisted by a corps of teachers that are an honor to the profession, much of the improvement in the schools of the city as a whole, has come through the training school and has been due to the noble influence exerted and the noble work accomplished within its walls.

CHILD STUDY.

Under the leadership of Miss Shattuck, a remarkable impulse has been given to child study during the year. Nearly all the teachers have organized into round tables, out of which has grown a union organization for purposes of general conference. Such a degree of interest has been manifested that more than once I have asked myself: Might it not be possible to extend the jurisdiction of the training school somewhat and to certificate (award diplomas to) such teachers as would take a voluntary course of two years say in pedagogics and child study, pursuing certain prescribed lines of investigation? I throw this out in this connection for the consideration of all concerned and ask the teachers especially to think it over. One cannot carry off large amounts of psychology and put them to practical use in teaching

without first having had loving contact with children in the school room as their preceptor for a considerable period. One who has been in the harness for some time is best qualified, all other things being equal, to profit by the accumulation of material and the storage of results secured in systematic investigation.

A GENERAL SCHEME OF ADAPTATION.

My recommendations regarding the grammar schools and the training school are made with reference to a general scheme of adaptation. Pawtucket is essentially an industrial city and the schools should be modified to meet its requirements as such. I would hold on to all we now have in the way of culture and I would continue to do all that we are now doing to promote culture, but I would emphasize the schools more upon the practical side. The foundations of a broad general culture should be as well laid in Pawtucket as they are in Boston, Cambridge, or any other culture centre, but the needs of the city as a great manufacturing centre should be respected. They have not been respected hitherto either in the grammar schools or the high school. Why not? Simply because the lack of accommodations in the high school made it impossible. But you have remodeled the high school and the remodelling of the grammar schools should follow as a matter of course. In the former you have created a strong commercial and industrial department which, with stenography and type-writing, will I believe, in good part pay for itself in the increased tuition of non-resident pupils. It is perhaps worthy of note in this connection that the Pawtucket Commercial College is not supported mainly by Pawtucket patronage. Two-thirds of the pupils come from the Attleboros and up the Valley.

The grammar schools should now be brought into line with the high school. Much of their so-called "drill" in the past has been

what it is in stone masonry, simply a further hammering into a hole;—being expended upon non-essentials or upon subjects either taken up too soon or continued too long. This is especially true of the ninth grade which, as compared with the high school, offers to my mind no compensating advantages to justify its maintenance in the old unmodified form. It delays those who are going to college and takes time and money from the poor man whose children should be allowed to graduate as soon as they have completed all that belongs strictly to the grammar school course. The American high school is a new high school, meeting the wants of the people as never before. It teaches the three R's directly or indirectly. It has its scientific and business departments as well as its college preparatory department. It serves the trades as well as the professions. Such a high school is now about to crown the school system of this city. On the other hand, the New England grammar school is an old grammar school, the companion and complement of the old New England academy, which it has survived. Its reconstruction is demanded to meet the new educational conditions of the country.

INDUSTRIAL TRAINING.

The introduction of industrial training is only a question of time in Pawtucket. All favor it in one form or another and the general scheme of adaptation of which I speak includes it. During the past year a detailed plan of wood work for the boys and cooking for the girls of the ninth grade was recommended by the special committee to whom you referred the matter. Their recommendations were adopted, but subsequently the question of expediency arose and the vote was reconsidered. I hope that in the ultimate settlement of the case, cooking will not be left out of the curriculum. The world's hinges turn largely upon getting three meals

a day and whatever a girl's aspiration may be, she is apt sooner or later to bring up in the kitchen. Besides, the cause of temperance depends in a measure upon food preparation, and in a city where so many of both sexes work in the mills, the education of the girls in home duties is apt to be neglected. Give the girls a chance! Let them have both cooking and sewing as soon as may be.

SCHOOL CABINET OF INDUSTRIAL OBJECTS.

Last November I sent out with your approval a letter to the manufacturers of the city asking them to contribute samples of manufactured products or, in case these were of a nature to preclude the idea of giving samples, any objects illustrating processes or stages of construction. It was explained to them that the ultimate aim was to form a "School Cabinet of Industrial Objects" that, showing what is going on in the business world here in Pawtucket, would be useful in the class-room as an object lesson, opening the eyes of the boys and girls to see what oppotunities are theirs, provided they have the requisite skill, knowledge, training and above all *natural aptitude* for engaging in industrial pursuits.

In response to this invitation the following cases have thus far been sent in :

TEXTILES.

Royal Weaving Company, three cases raw silk and samples of silks and velvets made.

American Hair Cloth Company, one case hair and samples of hair cloth crinoline and hair seating made.

J. J. Kenyon, two cases tapes, braids, shoe lacings, etc.

Seth Wilkinson, one case silk wipers, oil, etc.

Greene & Daniels, two cases threads, yarn and twine, plain and colored, and samples of raw material.

Dexter Yarn Company, one case yarns.

Slater Cotton Mill, three cases of raw material, cotton yarns and cloth, processes of manufacture, photographs, etc.

Hope Webbing Company, one case webbing and webbing material.

Dunnell Manufacturing Company, two cases of prints.

Lorraine Manufacturing Company, six cases of samples of raw, and partly finished materials and samples of manufactured products.

Robert D. Mason Company, three cases illustrating processes in dyeing; also material and goods.

D. Goff & Sons, four cases raw material and the treatment of same in process of manufacture; also braids and plushes.

Harrison Yarn and Dyeing Company, one case "fairy floss."

J. & P. Coats (Limited), one special case showing processes, raw material, stages of construction and finished products.

IRON.

Wm. H. Haskell & Co., one case screws, nuts, bolts, chains, washers, etc.

Pawtucket Manufacturing Company, four cases screws, nuts, bolts, chains, washers and various parts of machinery with illustrations of processes and steps in construction.

WOOD WORK

Atwood, Crawford Company, two cases spools and other turned goods.

T. D. Rice, one case enameled goods and novelties.

Fred J. Bancroft, one large case lawn tennis racquets and polo sticks.

MISCELLANEOUS.

Pawtucket Nickel Plating Company, one case showing processes in polishing and treatment in nickel bath.

Linton Brothers, one case cardboard and pulps.

J. Crocker & Son, one case flexible ornaments.

Collyer Machine Company, one case patent nail puller and parts.

Phillips Insulated Wire Company, one case samples insulated wires.

Jackson Patent Shell Roll Company, one case top rolls and samples of winder mandrils, spindle steps and condensers.

E. Jenckes Manufacturing Company, four cases stockings, bent wire, screw eyes, hooks, etc.

Narragansett Machine Company, two cases showing material and methods in manufacture of gymnastic apparatus, Indian Clubs, dumbbells, mattresses and musical bells.

Frank McKenna & Co., City Brass Foundry, one case showing methods and material in brass manufacture.

The success of this movement has been due largely to Mr. W. L. Coop, President of the Narragansett Machine Company, and member of the School Committee, who has taken a deep interest in it from the start. The first two cases were filled from his works and determined the *form* of the exhibit for all textiles and small articles. But now we are promised an arc lamp, a dynamo, a surgeon's search light and various models of inventions for which a different plan of installation will be necessary. Pawtucket is pre-eminently the home of patentees. The inventive genius that has been put into its products has created a demand for them throughout the whole country and made the names of our great manufacturers household words from the Atlantic to the Pacific. There seems now every reason for believing that with a little fostering care the good beginning that has been made, for that is all it really is, may be developed into the proportions of a permanent museum in which the people will take a just pride; and in that event, it may become your wish, instead of storing the so-called

"Cabinet" in the high school, to store it centrally, say in the Masonic Temple, provided there is sufficient room in the quarters of the school department there to admit of this.

In concluding reference to this subject, I desire to thank the manufacturers for the interest they have manifested and the kindness and courtesy they have shown. I have always contended that business is of itself educative, and that the transaction of business upon a large scale has a tendency to make men kindlier in feeling and increase their culture. My experience with the manufacturers of this city has only served to confirm me in this view and to strengthen the conviction I have always entertained that *head* training without *hand* training is incomplete. Our schools should lead up to labor as the inevitable and desirable condition of mankind, investing it with dignity and importance and clothing it with honor in the eyes of those who are to succeed us in the performance of our parts upon the stage of life.

"THE LITTLE WOMEN OF PAWTUCKET."

Early in the year the women teachers of the city conceived the idea of encouraging the girls to make a contribution to the Women's College fund of Brown University. Accordingly a circular to the mothers was prepared and the sum of $102.99 was brought in by the girls below the high school giving one or more pennies each. (The giving of large sums was discouraged and the boys were not allowed to contribute.) This was sent to the treasurer in the name of "The Little Women of Pawtucket," calling forth the following pleasant response:

PROVIDENCE, Oct. 30, 1895.

Mr. Gilman C. Fisher, Superintendent Schools, Pawtucket:

Dear Sir: It gives me great pleasure to acknowledge the receipt of your

cheque for $102.99 from "The Little Women of Pawtucket" for the Women's College fund. I most assuredly approve of the bright idea that originated this movement, and I know that the committee will be unanimous in their commendation and thanks.

The thought that so many are interested in and helping our work, will in itself be an added incentive to us to do all we can to accomplish the object we have undertaken, while the generous sum contributed will very materially increase our bank account.

Hoping that every "Little Woman" may realize how much we appreciate what she has done to help the good work on, and that she will always feel a personal interest in the Women's College which she has helped to build,

I remain very truly yours,

AMELIA S. KNIGHT.

Subsequently twenty dollars was sent by the young ladies of the high school in the name of "The Young Women of the Pawtucket High School." The receipt of the cheque called forth another graceful acknowledgment as follows:

366 BROADWAY, PROVIDENCE, 21st of November.

Mr. Gilman C. Fisher, Superintendent Public Schools, Pawtucket:

Dear Sir: I hasten to assure you of my appreciation of your kind letter and the very welcome enclosure of a cheque for twenty dollars from "The Young Women of the Pawtucket High School" for the Women's College fund.

While thanking them most heartily for their generous gift to the fund, I wish also to express the value of their contribution to the College itself, in the high standing in character and attainments of their representatives among the students and the hope that the Pawtucket High School will send many more of its graduates to the Women's College.

Nothing has given the committee more pleasure and encouragement in its work than the hearty and spontaneous co-operation of the schools of Pawtucket.

They have furnished an example which it is hoped will be followed throughout the State.

Very truly yours,

AMELIA S. KNIGHT,

Treasurer Women's College Fund.

The above letters were read to the girls, to whom through the superintendent they were respectively addressed.

THE TICE RESEARCH ART CLUB.

One of the most gratifying occasions and one of the most cheering and hopeful events of the year, was that afforded by the action of the "Tice Research Art Club" in holding a reception February 17th and donating at that time various copies of paintings and various casts for the decoration of the first grade room in the Church Hill school—a very charming and appropriate collection. "It is better to give than to receive," the Bible says, and I have no doubt these young ladies, all of whom as pupil teachers in the training school renewed, under the instruction of Mrs. Tice, their interest in art, have ere this acquired, through their noble and disinterested action, a deeper insight into the underlying beauty and meaning of these inspired words. At least it will always be theirs to enjoy the reflection that so long as little folks gather in that room, silent streams of influence will pour into their young lives, and many will be sure to be touched. There is nothing in the whole year that has afforded me more satisfaction personally than this example of love and thoughtfulness and *educational appreciation in giving*, and I beg to assure the donors, each and all, including their devoted leader, that I am proud of what they have done and proud to be associated with those who look at life and teaching in such a large and kindly way. All of the following works of art were given outright by members of the Club to be held in perpetuity by the city:

PAINTINGS.

1. Rafael Sanzio d'Urbino. 1453–1520 Umbrian.
   MADONNA DI SAN SISTO. Detail. Dresden Gallery.
   This is considered the finest of Rafael's Madonnas and belongs to the period of his fullest development.

2. Guido Reni. 1575–1642. Bolognese.
   AURORA. Palazzo Rospigliosi, Rome. Decoration of ceiling.
   It represents the dawn dispersing the clouds of night before the chariot of the Sun, which is surrounded by the Hours. Guido belongs to the last part of the great period of Italian art.
3. Anthony Van Dyck. 1599–1641. Flemish.
   BABY STUART. Academy of St. Luke, Rome.
4. Sir Thomas Lawrence. 1769–1830. English.
   THE KING OF ROME.
   The son of Emperor Napoleon I and Marie Louise, of Austria. He "was born the King of Rome and died an Austrian colonel."
5. Sir Edwin Landseer. 1802–1873. English.
   A DISTINGUISHED MEMBER OF THE HUMANE SOCIETY.
   National Gallery, London.
6. H. LeRolle. French.
   SHEPHERDESS AND SHEEP. Luxembourg Gallery, Paris.
7. Bartolomé Estéban Murillo. 1618-1682. Spanish School.
   ST. ANTHONY OF PADUA. Berlin Museum.
8. Ross Turner. American.
   MORNING AT VENICE.
9. GLASS BOWL WITH RED AND PINK ROSES.

CASTS.

10. William Morris Hunt. 1824–1879. American.
    FLIGHT OF TIME.
    Cast from which the painting formerly in the capitol at Albany was made.
11. Donatello. 1386–1468. Florentine.
    LAUGHING BOY.
12. Luca della Robbia. 1400–1481. Florentine.
    GIRL'S HEAD.
13. BAMBINO.
    The Foundling Hospital in Florence, known as the Innocenti, has nine of these circular reliefs above the arcades on its front. They are in glazed terra-cotta, white on a blue ground.
14. } Renaissance Brackets.
15. }

IN CONCLUSION.

While renewing my expression of appreciation of the support given to me in the past and thanking the teachers in like manner for the active, efficient service performed in the school room, I ask your consideration of the general scheme of adaptation I have sought to set forth in these pages. It involves a simpler organization of the schools, reduced expense, increased efficiency and the introduction of manual training as soon as practicable.

Respectfully submitted,

GILMAN C. FISHER.

Report of the High School.

Mr. Gilman C. Fisher, Superintendent of Schools:

DEAR SIR—I herewith submit my report of the high school for the year 1895–96.

The number of pupils registered has been 273. Of this number 97 were members of the entering class. The number to receive diplomas in June was 49, 14 more than were ever graduated from the school in any one year.

The work of the year has followed the usual lines, and has been performed under the same disadvantages as for the past five years. Nevertheless good work has been done. That the interest of the pupils and the enthusiasm of the teachers has been kept up under the trying circumstances of the years just passed is remarkable. Such zeal and faithfulness is to be highly commended.

At last, however, we can congratulate ourselves that the experiences of the past are at an end, and that at the opening of school in September we shall be comfortably and adequately housed in a convenient and well-arranged building.

The school committee has wisely abolished the two years' course, and in its place has provided a commercial and industrial course which combines culture studies and practical studies in such a way as to give the best mental development with the greatest amount of practical education. The aim of the course is twofold. On the commercial side it is intended to give a thorough business education, far superior to that furnished by the best business colleges, and along with this a good high school education. Strong courses will be offered in commercial arithmetic, bookkeeping,

business practice and correspondence, commercial law, history of commerce, typewriting and stenography. Hereafter no boy or girl in the city with a grammar school education will need to go to the heavy expense of seeking a commercial training elsewhere. The best in the country will be provided by the city free of cost. On the industrial side the aim will be to give the student a training that will enable him to enter the draughting rooms of any of our manufacturers with an equipment which shall win for him a responsible position. A training and practical knowledge equal to that given by the best schools of design can be obtained. In addition to advanced mechanical and free hand drawing and mathematics, there are offered enough culture studies to give a strong and well-rounded development.

The English and Classical Course and English Course have been revised and strengthened, and combined into what will be known as the General Course with a wide range of electives.

In the College and Scientific School Preparatory Course a few changes have been made to meet the new requirements of the colleges. In common with the leading high schools and academies in New England, arrangements will be made for the work of this course to be spread over five years. It is strongly recommended that pupils who enter the high school at an early age, and especially boys and girls with a weak physical constitution, should take advantage of this opportunity. It is a great mistake to drive pupils beyond their strength, physical and mental, with no higher purpose than to get them through a course of study in a definite time.

The class of '96 has presented to the school two handsome busts to be placed in the new building: the Apollo Belvedere and Diana of Versailles.

The new courses of study will be found in the appendix. It

has been thought wise to change the meaningless names of the classes now in use, and hereafter to designate them as follows: First Year, Second Year, Junior, Senior.

To you Mr. Superintendent, to my fellow teachers, and to the School Board, I desire to express my thanks for sympathy and aid in the management of the school.

WILLIAM WOODSIDE CURTIS.

Report of the Training School.

Gilman C. Fisher, Superintendent of Schools:

SIR—I have the honor of submitting the following report of the schools under my care.

THE GRADE SCHOOLS.

These schools have passed a quiet year, subject to no serious interruptions.

Fourteen of them have been used as schools of observation and practice.

The spirit of comradeship that exists in all the schools between teachers, students and pupils of the grades, is one of the pleasant features of the school seldom marred. The principal wishes to express her appreciation of the helpful, care taking spirit that has characterized the ninth grade. These pupils have filled the position that belongs to that grade in a commendable manner.

Many of the Lincoln avenue pupils have been so long unable to attend school that they are now below grade for their age, but with the new building we hope to do much to bring the school to grade during the year.

I wish to call attention to the advisability of an ungraded school within the district. It would be an advantage to those pupils who can attend only a part of the year, and it would also furnish an opportunity for the students to become better acquainted with the needs of this important class of pupils. The trend of thought is toward individualism in education, and there is no class of pupils who require personal care as these

out-of-grade pupils do. Some individual work has been done by the students, and always to mutual profit and pleasure.

The kindergarten remains under the efficient oversight of Miss Greeley. Its greatest need is *room*.

THE NORMAL DEPARTMENT.

Eleven students were admitted in September, six received diplomas in January, three in June, and eleven more were admitted. The school opens with twenty-two students, the last class being the first to enter upon a two years' course of instruction.

Thomas M. Ballist, Superintendent of Schools, Springfield, Mass., gave the address to the graduates in January; an earnest and effective appeal to teachers to work for broader culture and more extended professional training.

The extension of this department into Brook street, Summit street and Division street schools has proved to be a success. The faithful and excellent work done by all the teachers who have charge of the practice of the students is highly satisfactory and cannot be too highly appreciated involving, as it does, many hours of extra labor.

Much careful direct preparation is necessary to meet the requirements of the present course of study. This the teachers are also assisting me in giving in the lecture room.

In all the best schools in our country the demands upon the teachers are rapidly changing the requirements of our professional schools, and it has become imperative that students desiring to become teachers should receive the academic training to meet these demands or extend the period of normal school instruction by incorporating with it the required academic study. Excellent beyond question as the classes and mathematics are for mental discipline, they do not furnish all the preparation needed by these students.

A knowledge of natural science must be obtained by methods peculiar to itself, for which the use of a text book to secure a body of facts, can never be satisfactorily substituted. Three or four years, not three or four months, are necessary for the formation of reliable habits of observation and correct inference, and to acquire such knowledge of facts and laws as will most clearly impress upon the youthful mind the divine perfection as revealed in nature.

Studying with this end in view types have their true significance and the essential relation of each to all becomes clear.

Not many illustrations, but well chosen ones should be selected, that values may be sharply defined, and the novice should be taught to use them in such a way as to set in order before him the fundamental principles of nature; the expert only is competent to collect a mass of data and cull the lessons which it teaches.

In a word, elementary science should establish right apperception centers, then all facts accumulated later find their true place if retained; and the mental furnishing is orderly.

If the teacher does not possess this grasp of elementary science in some degree, the deficiency cannot be overcome by the most detailed and carefully planned course of study. The work will be largely characterized by an amount of observation, followed by recitation and record. There is a nascent period for observation when it is an end in itself, but later the pupil is just as eager to know the relation of things.

This is the time to teach him to systemize his knowledge; observation becomes a means to an end, and he learns to study. It is true that he only begins in the grades, but it is the most important part of his later work, and teachers should not be required to give so much of their time to instruction that no time

is left for teaching methods of study and showing individuals how to become students.

Pupils who do not receive this training are often excellent in observation, desirous for new things, willing to be led, and dependent, but restive under the restraint that study imposes upon them. To prevent these results the young teacher must possess some knowledge of the principles of teaching and the ability to select the most essential things from the wealth of material offered. This is knowing how to use a course of study that is permissive not mandatory.

The normal or training school can not give this power to a student not equipped with the elementary knowledge required in the grades so far as salient points and their proper relations demand, unless the course of instruction is prolonged to give it.

I believe that young people, with their willing spirit, and that trust which they are wont to place in their teachers, can be led to enter gladly upon any course of academic work which would best fit them for professional training, and that they could be taught to bear in mind the fact that they themselves are being led as they hope one day to lead their pupils.

The enrichment of the course below the high school as shown in the child-study movement is an expression of the changed social attitude toward the child. As never before the young people need the aid which the high school can give them in their efforts to become teachers, and the high school should have every facility that it needs to meet the demand upon it.

Apparatus for the use of the students in physical exercise was provided during the year, which is proving of great value to them. The hygeine of instruction should be based on child-study, and this must include a thorough knowledge of the laws of growth, and the care and proper development of the body.

The knowledge of the routine of any system and ability to secure satisfactory performance of class drill is but a small part of a teacher's duty in this respect. Carefully prescribed daily practice in a gymnasium to correct faults and develop power and freedom is of much importance to the student in promoting a fuller appreciation of this important part of her work.

If the apparatus is removed, this part of the work must be curtailed for lack of time to visit daily a more distant gymnasium. I wish that the members of the committee could see their way clear to let it remain where it is.

A dismantled room has been used during the year as a lecture room. The needs of the department make its continued use necessary. The room should be renovated and supplied with twenty-four desks.

CHILD–STUDY.

When the need for systematic child-study was recognized in this State by the appointment of a committee to suggest and direct work, the teachers of our city, already awake to the need for such study, expressed their interest by converting the classes in the study of Hebertian pedagogy into five round tables, having a total membership of eighty-two.

These round tables have formed an association to further the interests of child-study in the city. A sixth round table formed of recent graduates will seek admission in the fall.

Some fifty copies of the *Child-Study Monthly* are taken by the members of the association. These have furnished topics for discussion.

The syllabi issued by the State committee have been studied and used as a guide in observation by most of the teachers.

In June the pupils in grades above the fourth wrote a paper in

response to a syllabus which called for facts about the reading done during the year with a view to studying the various influences shaping their habits in reading.

In May the association held its first public meeting, which was addressed by Gardner T. Swarts, M. D., President Rhode Island State Board of Health, upon some of the physical aspects of the study; an address fully appreciated.

Several physicians manifested their interest by their presence, an interest which the teachers hope to see grow until it is shared by the parents and leads to their entering into round table study.

In closing this report permit me to express to you, and through you to the members of the School Committee, my appreciation of your helpfulness and consideration.

Respectfully submitted,

MARY L. P. SHATTUCK,

Principal.

Report of the Evening High School.

Mr. Gilman C. Fisher, Superintendent of Schools:

DEAR SIR—In my report for this year I wish to call your attention to the matter of attendance.

During the past year the greatest difficulty was experienced in keeping up the attendance. The number entering—mostly those who had not attended before—was exceedingly large, being close to two hundred; they were an exceptionally bright, earnest and well-intentioned class of pupils. As the term progressed, however, there was a rapid falling off in numbers and too great an irregularity in attendance and for the most part for no apparent or assignable reason. Everything was done on the part of the teachers to make the evenings of study pleasant and profitable. At no time since I have been in the school has so great an effort been made in this direction. Several of the teachers came early and stayed after the sessions, to help along those who get discouraged from being unable to keep up with their class. In spite of this very many left who should not have left during the first few weeks. It is a noticeable fact that those who stay eight or nine weeks continue through the whole twenty. It is not possible of course to hold all who enter. Out of two hundred taken from all sections of the city and occupied during the day in all kinds of employment there is sure to be a large number of restless spirits, who are, immediately they enter the school, at a loss to know why they are there. How to hold this class so far as possible is the great question with the Evening High School.

The ideal way, it is true, is to at once get them interested in the work. This is done with considerable success considering the conditions at the opening of the school. Five or six teachers are given from a hundred and fifty to two hundred pupils who are interested in or think they want to study twenty or more subjects. Some of them must, of necessity, take up a study or studies which they think will do them no good at all. Before they can be made to see wherein they are to be benefited they lose interest and are gone. The work should be practical. It is the aim so far as possible to make the work practical and at the same time to give them what every man and woman ought to know, in short, to give them a foundation for becoming good, intelligent, self respecting citizens. If all this fails what then? How are we to keep those not easily interested?

It seems to me after much thought upon the matter that it would work no hardships to impose upon those entering for the first time—the juniors—and upon those who did not the previous year get a certificate, a fee of two dollars (that may be too high) as a guarantee of a desire and intention to be faithful and regular in attendance, to be returned at the close of the first term of ten weeks. If before that time any left unless for sickness or other good reason, or were irregular in attendance, let the fee go to the city to the evening school account to be used in purchasing supplies. This would be no more than fair. The city hires one and sometimes two extra teachers just on account of this class. If they put the city to this unnecessary expense let them pay for it. After attending ten weeks, I am firmly convinced that the greater part of this class would remain with us. It would be well to have this matter thoroughly discussed by the evening school committee. I merely mention it here. I give here the record of attendance:

Whole number admitted, 198. Average attendance, 63. Percentage, 58.

In view of the fact that shorthand and typewriting are to be introduced into the commercial department of the High School it would be well to form a class in the Evening High School. This is an opportunity desired for the past three or four years by quite a large number. Each year ten or a dozen have asked that this course might be introduced. It would be keenly appreciated by young men and ladies who are in offices, who would otherwise never have the chance to make themselves more efficient and their promotion more rapid.

With this exception no change is desired. We do not want to drop any study now given, and no more can be added without an increase in teaching force.

Under your accustomed oversight and with the keen and unusual interest of the new members of the evening school committee, for which we are truly thankful, and with comfortable quarters, the coming year should be more profitable than ever.

Very truly,

H. H. HASTINGS.

Principal.

Report of the Evening Drawing School.

Mr. Gilman C. Fisher, Superintendent of Schools:

DEAR SIR — In submitting my annual report of the Drawing School, I am pleased to say that the work taken as a whole has been quite satisfactory.

A majority of those enrolled this year were new students, thus causing the work in several classes to be of an elementary nature. This condition of things has existed for three years, as we have changed our location once and somtimes twice a year and have drawn students from different sections of the city each year, so that those attending one year found it difficult to enroll the next on account of the distance from home and hard travelling during the winter season.

If the committtee can see their way clear to have the school remain in its present quarters next winter, a great impetus will be given to the work.

Since the fire at Garden Street School we have had no satisfactory models from which to work; students were asked to bring models from home and a few specimens were recieved in this manner but, in most cases, they were not what was desired. A collection such as is needed in our work cannot be found in a day and I would recommend that a small appropriation be made for this purpose before the school opens the coming winter.

There is no better way to teach model drawing, perpective and light and shade than by the use of large wooden models; i. e. cubes with 2 feet 6 inch edges, etc., two each of a dozen models

would be sufficient; the models used at present being only 3 inches square. Models are very scarce in the mechanical department. We should have more in order to do satisfactory work. The casts which were smoked during the fire have been cleaned and are in good condition.

With the exception of wood-carving which was introduced this year, there are no marked changes to report.

The annual exhibit was pronounced by those who have visited it from year to year, to be the best yet given. Many citizens came in out of curiosity and expressed surprise at the work exhibited.

Several persons who had never before visited the school and had always been luke warm, if not actually opposed to it, after critically examining the work, passed out strong advocates of the school and fully convinced as to its usefulness.

I desire to thank you and members of the committee for support received during the year.

WILLIAM A. NEWELL,
Principal.

Report of the Supervisor of Music.

Mr. G. C. Fisher, Superintendent of Schools:

DEAR SIR—I have the honor of presenting to you my annual report for the year ending June 26, 1896. From a musical standpoint the schools are in a very good condition, having made quite satisfactory progress in many respects during the year. In the high school we have been favored by having the Methodist Chapel to meet in for singing. The advantage of a single hall over separate rooms is obvious, and now that we are to have a new building ready for use in the fall, I trust there will be no more complaint in that line. With suitable provisions for teaching, including a grand piano for the large hall (the need of which I hope will not be overlooked) more interest will be manifested in the music, both by teachers and pupils.

The music at the high school graduation was first-class in every respect, every one trying to do his best. Too much praise cannot be given Miss Demers and Miss Collins for their solo work. The choruses were well rendered. Master Hawes acquitted himself finely in his violin solo, this being spoken of in the highest terms by professionals. Miss Darling acted as accompanist, and is entitled to very much praise.

At the grammar graduation the music rendered was of a much higher order than that of previous years. The singing was good, the boys deserving great credit for their part in it, especially their solos. I think they never did better. The same can be said of the girls. Their choruses were excellent, and they ren-

dered their parts to the satisfaction of all. Miss Jennie McKinley of the high school presided at the piano as accompanist, and gave perfect satisfaction.

I hope that the sub-committee on music will report favorably upon the employment of a lady assistant for the lower grades, and that the Board will see fit to engage some one for that position. There will be more schools this year than last, and once in four weeks is as often as I can get around to each room; but with an assistant more frequent visits could be paid and I should be able to give more time to the grammar grades. These I consider of great importance as many of the pupils are not able to enter the high school.

I want to thank the teachers for their willingness to assist me as manifested throughout the year. The best of feeling exists between them and myself, as far as I know. I also thank you for your kind co-operation and assistance.

Respectfully submitted,

ALBERT C. WHITE,

Supervisor of Music.

Report of the Supervisor of Drawing.

Mr. Gilman C. Fisher, Superintendent of Schools:

DEAR SIR—My sixth report as Supervisor of Drawing is herein presented.

Let us begin with a glance backward. Has Pawtucket kept abreast of and helped on the art movement in American schools? In times past opinions have been expressed as to the good effects drawing would have if taught according to certain plans. The work has been done in accordance with such plans for a period long enough to give a sure test as to the correctness or incorrectness of these views, and I believe that it may be fairly asserted that actual conditions and results give positive proof that the good effects claimed have been realized in practice.

Some years ago in this city the teaching of drawing and the subjects commonly classed with it was irregular and fragmentary. At present there is a *system* and every teacher is doing work at regular times and according to a definite plan. Then most of our teachers were almost wholly untrained in the work; now nearly all understand methods of presenting the subject. Then pupils reproduced flat drawings, copying with more or less fidelity what some one else had seen, thought out, and expressed; now pupils draw from actual objects and are compelled to be independent and original, to see, think, invent, and express for themselves. At that time very little was done to give knowledge of and training in color; at present this subject is a regular part of

the course, colored paper is used and water color is being introduced. Within a short time works of art, once like the proverbial angel's visits, have been procured to decorate our schoolrooms, and books, casts, photographs and examples of good rendering have been obtained to help on the art work. A short time ago the skill of teachers and pupils in drawing was so slight that it was scarcely used in school work. Now in arithmetic and geography, history and nature study, language and literature, the teaching is made clearer and more attractive, and the lessons studied are more interesting and more firmly fixed by graphic illustration. Most important of all, perhaps, while a few years ago not many of either teachers or pupils seemed to care for the study of art or to search for the beautiful in objects, now large numbers of both teachers and taught are keen and industrious in their search for artistic principles and for beauty everywhere. With accuracy in studying and in reproducing, and with the love for the beautiful and the expression of it, have come fitness, order and beauty in general work and, as I believe, in conduct and character.

Not a few of those who have lately studied drawing in our city schools now not only find their whole lives broadened and enriched, but also are engaged in some business pursuit wherein they are successful by means of their art work as pupils.

It may be worth noting also that the cost of the material for our schools is little, if any, more than it was years ago, and furthermore that neither teachers nor pupils have found the burden of their work increased by the drawing, but rather have felt that their tasks are lightened and often made really fascinating thereby.

While it may easily be shown that the work in drawing has made rapid progress in the last few years and that at present it is on

the whole good, and in some schools exceedingly so, yet it is equally true that results vary according to the ability of the teacher.

A self-respecting teacher would not for a moment think of going before an arithmetic class when she had not studied either the subject matter of the lesson or methods of presenting it. Should she be allowed to try to give a drawing lesson when wholly unprepared?

All grade teachers without exception should feel the necessity of mastering this subject, for unless they understand the principles, have skill in drawing, and know methods of teaching, their fate will be that of other "blind leaders of the blind."

Since all the teachers' meetings come after school hours, it has generally been impossible for me to meet the teachers of each grade oftener than once a month. One grade meeting and one visit from the supervisor each month do not give sufficient help for a new teacher who instructs an advanced grade and who has not previously taught or even studied this subject. In fact she gets comparatively little help from a grade meeting as the work is based on what has been acquired before. There seems but one satisfactory way to proceed, which is to have the grade teacher feel that *she* is responsible for the work and that she should avail herself of one or the other of the two chances furnished her to extend her knowledge: namely, to meet the supervisor regularly at least once a week for actual work with the different media or to join the teachers' class in our Evening Drawing School.

The teachers composing "The Tice Research Art Club" have been enthusiastic and persistent in their work of the club during the year and seem to be unanimous in thinking that beside the broad, general culture thereby gained they have increased measur-

ably in ability to unite the subject of art with the teaching of the common branches.

In regard to next year's work I have a few suggestions. We should have more material, such as books on art, historic ornament, and the like, so that no teachers will be obliged to wait for material until it has been used by other teachers.

I believe water color to be the most direct and most effective medium for expression in connection with much of the work in nature study and design. Brushes and color could be furnished for a sum not exceeding that now spent for colored paper. Water color should not be used to the exclusion of pencil and colored paper. Its employment should be optional at first, all teachers being allowed to use it who know how to do so.

It gives me intense pleasure to be able to report that a considerable number of works of high art have been presented during the year to our elementary schools and that more of equal merit will be given our high school on the dedication of the new building. May we not hope that some benevolent person or persons will furnish the walls of our new kindergarten cottage with æsthetic decorations in much the same manner that "The Tice Research Art Club" have decorated the first grade room of the Church Hill school? All who aid in this art movement will merit the deep gratitude of our schools, for the culture and inspiration thereby given to the spiritual nature of our children will be intense, far-reaching and enduring.

Respectfully submitted,

GENEVA COOLEY TICE.

REPORT OF THE

Supervisor of Nature Study and Penmanship.

Mr. Gilman C. Fisher, Superintendent of Schools:

SIR—I submit herewith the report of my two departments:

I

NATURE STUDY.

The children have been led to observe the common things about them more closely than ever before and have learned to describe what they have seen more accurately. This observation work has given subject matter for much of the language in the lower grades.

A course of study, including health lessons, elementary physics, mineralogy, botany and zoology, has been arranged for eight grades below the high school. This course must necessarily be a suggestive one, as the conditions and surroundings of one school may require an altogether different outline of study from another school in the same city. One may be near the fields and woods, another near the river, another in the heart of the city, and a director of nature study must feel free to substitute other lines of work than that given in the program, whenever occasion demands it.

The outline of study is planned to follow the seasons. Children love every thing out of doors, the flowers, the insects, the birds, the animals, the rocks, the stars, all offer their special attractions. While we cannot give them a thorough knowledge in any of these

departments we can at least lead them to see and tell what they have seen for the benefit of themselves and others.

Whenever it has been possible the objects to be studied have been in the hands of the children, and after each child has drawn his object he is led to express orally all that he himself can discover, and then, with the addition of a few interesting facts given by the teacher, to write what he has learned. Children are enthusiastic and interested, just in proportion to the enthusiasm and interest manifested by the teacher, and we often find them collecting those things which the teacher enjoys most.

The normal class in the Training School has been met one morning of each week and instructions given in vertical writing at the blackboard and at the seat. Lessons in nature study have been given, following the plan of the course of study, instruction being given in advance of the work in the schools so that the pupil-teachers might feel prepared to give lessons when they were required to do so.

II

PENMANSHIP.

During the first term of the year vertical writing was given a test in the Garden Street district. With a little change in spacing the forms of letters published by Silver, Burdett & Co., were employed. In a few weeks a remarkable improvement in the appearance of all the written work of the pupils was noted. No copy-books were used as no spacing was desired. Instead ordinarily ruled paper was used and the alphabet was placed on the blackboards convenient for reference. Copies were placed on the boards by the teachers.

By the experiment the committee were convinced that vertical writing was the kind needed and voted to introduce it into the

first four grades of all the schools, allowing teachers of higher grades to teach it if they deemed it advisable. At this time many systems of writing had been examined and after careful study and comparison it was decided that the forms of "The Natural System," published by D. C. Heath & Co., were the best hygienically and psychologically—the letters being very simple and more truly vertical than others, well-spaced and rounded, and the copies arranged so that the little child just beginning to write has very large forms to follow, while the older and more experienced child has smaller forms.

A series of meetings were held with the teachers of different grades and practice with the new forms given. Only vertical forms were placed before the children and they readily adopted them. Vertical writing has now been taken in all but eight classes in the city, these being one sixth grade, two seventh grades, two eighth grades and three ninth grades.

The results of the change have been gratifying. The writing of the children has become very legible and neat. They feel that here are forms which they can make well, and the neatness and care in the regular lessons have reacted upon all other lines of work, and we find all papers more satisfactory than when slanting forms were used. The writing on the blackboard is much more legible than the best slant writing ever was and the pupils' eyes are benefited in consequence. The teachers find papers much easier to correct and the writing a relief to eyes and head

In a few first grades pen and ink have been given to the little folks, and we have found that they do quite as well if not better than the children of the second grades. The reason for this is that they have not used the lead pencil for so long a time. In order to get a mark which is satisfactory to them and which they can see, children hold a pencil firmly and press down upon the point. If,

instead, they were given at the beginning a coarse pen, which would give them a good stroke with but slight pressure, pen-holding would cease to be so difficult a problem. Now the tendency is to grasp the penholder in the same way the pencil is held. I would suggest that pen and ink be used for all written work, including number work, in all grades in the future. Perhaps this might entail a little extra work at the start, but I believe the results would well repay the effort. I believe it would be much better for the eyesight of the children were the pencil used less and the pen much more.

During the year we have gained legibility and neatness, and in another year as a result of our experience and practice I hope a third requisite of penmanship, rapidity, may be acquired. At one general meeting in the spring, Mr. Newlands, one of the editors of "The Natural System," addressed the teachers and explained very clearly the origin and development of his system, impressing us with the thoroughness with which he had studied into the subject and his careful thought of the needs of the child.

In closing this report I wish to express my thanks to you, to the members of the committee, and to the teachers, for the kind cooperation with my plans in both nature study and penmanship during the entire year. I must express my gratitude to the children, too, who by their smiles and eager interest and effort have made the past year a truly pleasant one.

Respectfully submitted,

JULIA M. TALBOT.

REPORT OF

The Supervisor of Physical Training.

Gilman C. Fisher, Superintendent of Schools:

SIR—I have the honor to submit the following report of the work in Physical Training:

During the summer many changes of desks were made by the committee. These with the purchase of adjustable desks whenever new ones were required, rendered a suitable seating of the pupils an easy matter. In September a few individual changes were all that were necessary where a child was unusually large or small compared with others of his grade. With an opportunity to have his feet squarely on the floor, plenty of room for his knees under the desk, and such a height of desk that the shoulder is neither raised or lowered during the written work or drawing, the pupil's possibilities for healthful carriage of body during his seat work are increased. In this point of correct sitting there is certainly correlation between the music, drawing, penmanship, and physical training.

The regular work in the various classes has gone on much the same as in the three previous years. Wherever there is a hall (?), an empty room, attic, or kindergarten, the pupils have been taken there for practice at my visits once every two weeks. The open space without desks gives an opportunity to correct any faults which of necessity pass unnoticed between the desks. There is also a much greater freedom of movement.

More marching has been done. Many of the classes have either purchased drums themselves or some member of the class has loaned one.

Games have been very successfully played in the first six grades. It has been very gratifying to see the interest which the children take in the games. In several instances I started to teach a game and the children would say, "Oh! I know how to play that. My sister, who goes to Miss A.'s, played it at home last night, or my brother told us all about it." They worked very hard on the daily exercise to be able to please Miss Taylor and have a game.

It has been said that the children of to-day play "school" rather than the good frolicing games which take them out into the fields and open air. On inquiry we found that our Pawtucket children had a list of about two hundred sports and games from which to choose. Nothing delighted some of them better than taking the class and explaining some game new to me.

In the first and second grades since the new schedule came into effect there has not been as much time to devote to gymnastics as could be wished. The two recesses usually take twenty of the twenty-five minutes per day devoted to recess and gymnastics.

By the kindness of the committee a vacant room at Summit street was fitted up with gymnastic apparatus, which belongs to the gymnasium at the new high school.

The young ladies at the training school had the use of it. They were very enthusiastic, and from the time they began until April had four lessons per week. The latter part of the year they studied the theory of Swedish gymnastics.

The plan receiving the Superintendent's approval, the pupils of the ninth grade at Grove street school came to the "gymnasium" once a week for a half hour's drill. The orderly manner in which

they marched from Grove street to Summit reflected much credit on the captains and scholars. The results of the experiment were such that we hope to continue it the coming year.

The pupils and principal at Broadway secured a sum of money and have fitted up one of the attics as a gymnasium. May the day be not far distant when each grammar school shall have a gymnasium of its own! I very strongly advocate gymnasium work for the eighth and ninth grades.

The hearty co-operation of the teachers has made my work a pleasure. Kind words of commendation from many of the parents show that the importance of strengthening and educating the physical part of the child is becoming better recognized by the public.

I wish to thank the Committee and Superintendent for the prompt attention, suggestions for improvement have received at their hands.

Respectfully submitted,

SARAH MAY TAYLOR.

Report of the Truant Officer.

Mr. Gilman C. Fisher, Superintendent of Schools:

DEAR SIR—I have the honor to present my second annual report, in tabulated form, of the work performed in my department for the year ending July 1st, 1896, together with the census returns of school children taken by the enumerators, January, 1896:

Number of cases of absenteeism investigated,	440
" " parents notified to send their children to school,	440
" " manufacturing establishments visited,	205
" " children found employed contrary to law,	36
" " employers notified,	36
" " children reported absent from school under suspicion,	440
Number of truancies determined by investigation,	27
" " truants returned to school,	27
" " children warned,	440

WORK CERTIFICATES.

Number of certificates in force July, 1895,	472
Number of certificates issued in the past year,	565
Total,	1037
Number of children returned to school,	370
" " " become 15 years of age,	188
" " " removed from the city,	45
" " certificates in force July 1st, 1896,	434
Total,	1037

CENSUS, 1896.	Boys.	Girls.	Total
Number of children attending Public Schools	2093	1957	4050
Number of children attending Catholic Schools	892	926	1818
Number of children attending Select Schools	24	20	44
Number of children attending no school	368	390	758
Total	3377	3293	6670

	Boys.	Girls.	Total
Number of children under 7 years of age not attending any school	280	282	562
Number of children 7 years and under 15 not attending any school	64	65	129
Number of children 15 years of age not attending any school	26	41	67
Number of children under 7 years of age attending school less than 16 weeks	30	40	70
Number of children 7 years old and under 15 attending school less than 16 weeks	10	9	19
Number of children 15 years of age attending school less than 16 weeks	4	3	7

In closing this, my second annual report, it is gratifying to note that the percentage of absenteeism reported by the teachers and received from other sources has been largely reduced. Last year there were reported 565 cases; this year 440 cases. A large proportion of these cases have been on account of sickness of the pupil or some member of the family dependent upon him.

Another cause of absenteeism is the fear of contagious disease in the neighborhood, it being almost impossible to compel the parents to send their children at a time when it prevails.

Another source of trouble is the vaccination problem. Many parents are unwilling to have their children vaccinated, and of

course they cannot go to the public school unless they comply with the law in this regard. If the parents were as desirous to send their children to school as the teachers are to have them come, cases of absenteeism would be rare.

The number of children found employed contrary to law has been less this year than last. In a majority of cases the children were entitled to a work certificate, but had not applied to the teacher for it. I find that the employers are willing to comply with the law, but there is a disposition on the part of some parents to deceive the employers in regard to the age of the child. In such cases every effort is made to get at the facts.

There are fewer cases of truancy, owing to persistent effort to check the evil, and it is the sincere wish of the writer that with the new year parents endeavor to have their children attend school without the help of the truant officer.

In conclusion my thanks are due, and are hereby tendered, to the school committee, the Superintendent and the teachers, for their kind assistance; also to the police department and all others with whom I have met officially during the year.

Respectfully submitted,

J. AUSTIN FRENCH,

Truant Officer.

Teachers' Meetings.

[*Abstract of Papers and Proceedings.*]

GENERAL, Sept. 11. His Honor Mayor Henry E Tiepke, by special invitation, made address of welcome to the teachers, and spoke of the advantages of industrial training to the youth of a city like Pawtucket. The superintendent explained plans of work for the year.

GRADES I, II, III, Oct. 14. "Contribution" meeting upon arithmetic—very instructive and helpful. The teachers brought devices and explained methods. Much interest was manifested. At this meeting Grade Representatives were elected.

GENERAL, Oct. 15. Commissioner Stockwell who, much to the regret of all, was unable to be present at the opening meeting of the year, spoke of the teacher's need of power—power of insight, adaptation and control, and gave practical illustrations. Mr. W. L. Coop, member of the school committee, being present and called upon, spoke briefly by way of endorsement of certain views advanced by Commissioner Stockwell concerning the value of imagination to the practical business man. Miss Minna C. Steinberg of the fifth grade, Church Hill school, having spent the summer in Germany visiting the German schools, read a paper giving her impressions of the same and noting some of her experiences *en route*. The superintendent spoke of the desirability of bringing the schools and homes into closer relations.

GRADE IV, Nov. 11.
GRADE V, Nov. 20.
GRADE VI, Nov. 21. } "Contribution" meetings upon arithmetic, spelling and other subjects. Grade Representatives elected.

GRAMMAR GRADES, Nov. 25. Discussion of school programmes and course of study.

GENERAL, Jan. 20. Singing by pupils of the seventh and eighth grades under the direction of Mr. White. Misses Estella F. Scott and Eleanor M. Jollie read papers describing the Far West as seen by them during an extended tour the previous summer. Messrs. Ansel D. Nickerson and Charles A. Lee made addresses. The superintendent spoke of certain special needs of the schools.

GENERAL, March 20. The subject of "Temperance Teaching" was presented by Mrs. Henry J. Smith, editor of the *Outlook*, who was assured by the superintendent that the schools were daily deepening into greater seriousness of feeling with regard to right living, and that the teachers as well as himself all stood ready to promote the cause of temperance by every means in their power. Following this the length of the elementary school course was considered. The superintendent presented his views and principals Curtis, Mudge and others engaged in the discussion.

GENERAL, April 16. "From the Atlantic to Pike's Peak," was the subject of a stereopticon lecture by Mrs. M. A. Sanders, delivered at the request of many friends.

HORACE MANN MEMORIAL SERVICE, May 4. The teachers assembled at the following call of the superintendent:

One hundred years ago to-day, Horace Mann, the greatest of American educators, was born. I ask you, therefore, to meet at the Church Hill school at 4.45 this afternoon to do honor to his memory. I do not know how widely this occasion is to be observed in the country at large, but let us all do our part here in Pawtucket. Please tell the pupils, moreover, that the flag is flying to-day not merely because Rhode Island shook off allegiance to the British crown in 1776, but because in 1796 this friend of humanity, this champion of children, was born.

Addresses were made by Messrs. Ansel D. Nickerson, William R. Sayles and the superintendent. The teachers sang under the leadership of Mr. White, and gems from the writings of Horace Mann were read or recited by the pupil-teachers of the training school. The meeting was one that touched all hearts.

GRADES BELOW THE HIGH, May 26. Subject of "Vertical Penmanship," presented by Prof. Newlands of Kingston, Ontario, one of the authors of the D. C. Heath system. Questions asked and answered.

GENERAL, June 12. A paper upon "Grammar school work in English from the point of view of the high school," was read by Mr. William H. Powers, teacher of English and mathematics in the high school. Portions of the paper were as follows:

The tendency with high school teachers to find fault, whether justly or not, with the preparation in English of the pupils coming fresh from the grammar schools is explained in part, at least, by the failure in each school to understand the other, the failure to give co-operation and sympathy to the work that is not ours. Am I exaggerating when I say that we are profoundly ignorant of the means, methods, and aims of the teachers even in the schools most closely associated with our own? That we selfishly look only to ourselves and think most narrowly of only our work? Work, I say; that is, if we have so risen above a mere dollars-and-cents interest as to look upon teaching as *our work*. This tendency to find fault is emphasized, also, in that high school teachers are not all certain, at least, are not agreed among themselves as to what preparation is most desirable. Having formed no just notion of what can be done, and having no reasonable expectations of a definite character, they are ready to criticise anything and everything that comes to them.

This condition of things, doubtless is in a large measure due to the great changes that have taken place, that are even now going on in the study of English. It is one of the conditions attendant upon the life of a larger and more liberal culture that he who enters that life, is in danger of losing solid footing, of straying into what prove marshes, fogs, or thickets. Thus, frequently, our very progress becomes the explanation of our shortcomings.

With notions of grammar derived largely from languages where

changes of form, inflections, agreements were all important, it is not strange that grammar became almost wholly a study of parts of speech. When, in turn, such work came to be considered in respect to its utility in production of English prose, it again is not strange that grammar on the part of the reformers became the special object of attack, became indeed, almost an outcast from the flock of sciences.

* * * * * * * * * * *

Suppose we take the parts of speech, give a hasty examination and see what matters cannot, or should not, be taught to the pupil of the grammar school.

Nouns are treated under the following heads: definition, kinds, gender, number, case, and person. In teaching young pupils the only thing to be noticed under kinds is the distinction between common and proper; and this is of consequence not for grammatical reasons, but because of the use of the capital initial letter in proper nouns. It is better, therefore, to teach this under the subject of capital letters rather than under nouns. The different genders certainly are insignificant, except in so far as this distinction is marked by changes in form or by use of different words. The changes in form such as *abbot*, *abbess*, are few and not very important. The topic might be spared. As to case, evidently the forms of the possessive alone should be taught; anything beside this is rather mischievous than otherwise. Case should be reserved for pronouns and foreign languages. I think it would much simplify matters if the word *case* was entirely dropped in connection with nouns. Too often have I had to combat the notion that pronouns agreed in case with their antecedents. Of course nouns, properly speaking, have no persons.

Passing to pronouns we find much more grammatical material, but some things so difficult that perhaps they should be reserved for future study. The interrogatives, their use and cases can be learned; the personals, their cases, numbers, forms; but the relative cannot be understood until the complex sentence is understood; while the indefinites are so closely connected with the indefinite adjectives, and the latter are so numerous and important, that it may be well to pass them to the high school.

A further word upon the relative may not be out of place. Relative pronouns, judging from experience, present unusual difficulty. After long and careful drill pupils still fail to have a part of their ready knowledge, their two-fold function, the use as pronoun, and the use as connective. I have used with considerable success the following device:

Taking as an example, *The house which you see on the hill belongs to Gen. Sherman*, the pupil readily sees that *which* refers to *house*, or, as we say, stands for house. Tell him then to drop *which* and use *house* instead. He is not used to obeying orders exactly and he stumbles; but at last we get the sentence to read, The house, the house you see, etc. The repetition of *house* troubles him, and he observes that as thus stated all of these words cannot be used in one sentence; soon he is led to put the second word *house* after *see*, and make two complete statements. What is the means by which these two statements were at first united into one? The little word *which*; insist then upon giving the relative, or connective value to such pronouns. Treat in every lesson other relative pronouns after the same manner. Not only does this method emphasize the relative force of the relative, but it frequently fixes the use and position of a troublesome phrase. Indeed, it is the only method I have found of making intelligible such a complex sentence as the following: *Under the old elm, at the foot of which bubbled forth a clear spring, was gathered a merry group of children.* The difficulty here is two-fold: How is the connection made? What is the function of the phrase, at the foot of which? But if the child has been taught to substitute the antecedent for the troublesome pronoun, then change the order of the words if necessary and make two sentences out of one, he is able to surmount these difficulties. He reads and understands with ease, *A clear spring, bubbled forth at the foot of the old elm. Under the tree, etc.*

If now you say: any child has a general notion, sufficiently clear, of the meaning of such a sentence. What's the use of vexing his head about merely formal grammar, and the niceties of of thought relations? It isn't worth the trouble.

Then, I am sorry to say, we must part company. We can never agree upon the teaching of English. If such teaching is not aimed to give ability to understand and appreciate the thought powers of our language, the logic of our tongue, to impart a knowledge of the means used to produce these thought-effects and to inspire admiration for the genius which compels language to its bidding, together with some desire on the part of the pupil to make this power his own, I know not what aims you can put before the teacher of this subject. Some persons may be able to teach English without this drill in the rigorous correspondence of thought and form. Successfully or satisfactorily I cannot.

Of adjectives, the kinds or classes at once make difficulty as they are not well understood; furthermore the adjective is so unimporant gramatically that the whole subject, name and all, might better be omitted until the essentials have been mastered.

Passing the verb for the present, we take next the adverbs. They can be dismissed as have the adjectives. The only intelligible way to treat these parts of speech is with reference to their functions. It seems to be only an unimportant accident that adjectives modify or limit nouns. I am rather inclined to believe that it would be an excellent thing to drop altogether in elementary schools the names *adjective* and *adverb*. When adjectives agreed by changes of form with nouns, then their study, even in elementary grades, was essential.

In English the only intelligible thing about an adverb is that it expresses *time*, *place*, *cause*, or some such idea. These ideas lead us so far through phrases, clauses, the complex sentence, that it seems vain to attempt the mastery of the adverb with young pupils.

Pupils can easily be taught to recognize the prepositions and conjunctions. Beyond their recognition when seen, nothing should be attempted.

From the definition of the verb, young pupils cannot learn so much as from the explanation that the verb is that without which we can have no statement or sentence. The first thing to do in teaching grammar is to make the pupil, by long and constant drill, certain of the verbs. Drill him in his reading lessons until he knows this one thing, months, if need be, but take up no other grammatical point until he can recognize with assurance the ordinary intransitive verbs of action. Then teach him a good definition. If this is properly done, there ought henceforth to be little confusion of the parts of speech. Even the seemingly inevitable confusion of *verb* and *participle* ought by such a course to be rare.

Then comes the distinction between transitive and intransitive verbs, with teaching of subject and object.

Voice and mood are not of primary importance, present difficulties, and are likely to be easily forgotten. A full explanation of the position here taken would be too long for the present occasion. Let me say, however, that it seems to me, in teaching *voice*, we have put the emphasis wrongly on the so-called passive conjugation. Of course the participle alone is passive, and it is passive whether used with the verb *to be* or not. The pupil, however, is likely to think that the virtue lies in the phrase *be loved*. Don't understand me as saying that of intransitive verbs, past particle is passive.

Of the moods, the subjunctive has few inflections and is rarely used. The so-called potential is happily banished from the best grammars. The imperative can just as well be presented under kinds of sentence.

So banish *voice* and *mood* from elementary grammar. In tense the present and past can easily be taught with constant reference to the time idea. The other so-called tenses are phrases, and were better left till later. Person and number can be taught, but unless taught intelligibly, had better be reserved.

A word of explanation about verb-phrases. We have many groups of words which serve us much as inflected forms served the Latins. Such are *I am loved, am loving, have loved, will love,* etc. Yet these are *not* inflections, and to teach them as such makes very difficult a true and exact understanding of their nature and their use, at the time when the pupil is able to appreciate such knowledge.

Thus we have gone over the parts of speech. One observation on the principles that have led us to make such a selection of grammatical material. One of the reasons why grammar has been so hateful to children is that it has seemed so vague they could form no definite notion of what was aimed at, or what was to be learned. In Latin it becomes at least a little easier; for there the changes of form appeal to the eye. If then, in English, we fix the atten tion first on forms that appeal to the eye, we lead to thinking by means of sight. Such visible forms are proper nouns, the possessive case, the different pronouns and their cases, the prepositions and conjunctions, the person, number, and tense of verbs. To these we add just a little of the more essential abstract portions of our science, as the knowledge of subject and object. A device which makes the appeal to sight much stronger is found in the various systems of diagraming. Some of them are simple and when not looked at as an end, but simply as a means, they are valuable. For, besides appealing to the eye, they economize space and time.

The second principle in accordance with which the selection is made, is that of presenting only one thing at a time. Nearly every thing in the foregoing plan is simple, calls for little but the immediate subject to be kept in mind; while the teaching of phrases, of relative pronouns, is complex and requires the learner to hold at least two objects of thought in the mind in conjunction, and then draw a conclusion. Indeed, in regard to the complex sentence, the difficulties are such that I feel I am not overestimating, when I say that the mastery of the complex sentence with ability to use properly and easily means the possession of a well disciplined mind.

Not *enough* of formal grammar, it would seem, perhaps, to some is provided for in this plan. Yet even so small an amount, unless given in small doses and with never ending drill, will not be mastered; thereby will be defeated the very end and aim of these

remarks, namely that what is attempted should be so well done as never to need even a review. With such an amount, so mastered, I, for one, will be well satisfied.

I am well aware that such a course would not fit pupils to take up quickly the complexities and multiplied forms of a highly inflected language like the Latin. I do not know that it is the function of the English teacher to serve as a preparatory drill master to the Latin school; to teach with falsity what does not exist in his language to make easier the task of him in whose department these difficulties are found. Such non-existent quantities in English are person and gender of nouns, even case outside of possessive. These are important in Latin, and in English we have continued these relics of a wornout past, and pretended to teach them. So, the Latin teacher is perhaps justified in complaining when the work is not thoroughly done. Let us drop the pretense, stick to the truths and difficulties, our English, and shift to the shoulders where it belongs all the burden of the Latin peculiarities.

* * * * * * * * * * *

If you ask me then, in conclusion, what the high school desires in the pupils from the grammar school, let me say: let them *know*, not half *know*, about formal grammar, what they have been taught; not many things, but a few things thoroughly. For example, they should know verbs so that they recognize them with just as little hesitation as they do numbers whether odd or even.

Let them be made capable by study of literature, by study of the simple thought relations found in the English they read, made capable, I say, of thinking for themselves with clearness and simplicity. Let them be able to express their simple thoughts, *whenever* necessary in the simplest possible manner. The sum of requirements then is these three, and these three only: fundamentals of grammar, clear and simple thought, clear and simple expression; with these, let us hope in the years to come for the attainment of such accuracy and excellence of ear and tongue as characterized the Grecian assemblies of old.

At the same meeting a paper upon "Physics in the Public Schools" was read by Mr. William T. Jackson, teacher of science in the high school. A portion of this paper is presented herewith:

The collection of subjects now employed as a means for educating the young is the product of many minds and of many cen-

turies. The church, the State and society have contributed to the accretion we now call the school program. Its genesis could be followed from the sixteenth century, when our modern education began, to the present time. At the revival of learning, the stock of knowledge was wholly from the ancients. The Latin was still in use, the learned wrote in that language. Mathematics, in a crude form, had reached the importance of a distinct subject. As soon as a desire arose for organized instruction, the ancient classics and mathematics naturally became the topics of study. There was no alternative, moreover, they were regarded as mere accomplishments or as tools for every day use.

It is, therefore, evident that the beginning of our courses of study was made without any well matured plans, such as we pretend to follow at present. The science of pedagogy was little known, it could give no guidance. Yet, many otherwise intelligent persons presume to find in these subjects a high degree of discipline, while, as a matter of fact, they were put into the program simply as information subjects,—as ends, not as means. To-day we claim to "teach, not subjects, but minds by subjects." A thing selected for one purpose is generally very poorly adapted to any other purpose that time and locality may happen to suggest. Hence, I contend that the effort to impute disciplinary value to a subject that was not selected for such value at all, is purely an afterthought and generally unwarranted.

If all the principles of pedagogy and psychology were known and reduced to axiomatic truth, in order that we might have an infallible test, it would be an even chance that any one of these medieval subjects be judged unfit to hold its present place in our courses of study. It is plain that much that we have has come from times far less experienced than our own, and that the present order of things is not inviolable. We feel that it does not and cannot yield what we justly demand. Owing to the infinite variety of opinion, our nation does not yet know what it would have its youth become, nor what means to adopt. Our problem, briefly stated is: to attain an unknown end by an unknown means. Why not clear the schools of all the existing patchwork of studies, and call together a body of experts, if they can be found, and have them construct a course according to well ascertained laws? Two notable efforts at program-making have been made, but the hesitating and doubting are still to be found.

The worth of any school subject depends upon what we wish to do for the pupil by the use of that subject. What we should do was forcibly stated two or three years ago by President Eliot: "These, then, are the four things in which the individual youth should be thoroughly trained, if his judgment and reasoning

powers are to be systematically developed: observing accurately; recording correctly; comparing, grouping and inferring justly; and expressing cogently the results of these mental operations." I must hasten here to guard against the possible conclusion that this passage applies only or especially to laboratory studies. It was written with reference to the whole of school work.

At this juncture a vital question arises, How far is the power gained in a study convertible to other and practical ends? We are accustomed to hearing it said that this study trains the memory, that one trains the reason, another trains the observing powers. According to my observation these statements are seldom based on any rational grounds. They are probably only weak and momentary efforts to form some kind of theory on matters educational.

Herbert Spencer puts values into two classes, the conventional and the intrinsic. To these I would add the traditional; for, as we have seen, the impetus gained in former centuries by certain subjects has carried them to the present, not, however, with unabated force. As regards the conventional, a study may be, in a certain sense, valnable because fashion has given it prominence; e. g., an honor graduate of a high school might be mortified, if found unable to give the details of a service to some pagan deity, but would feel no compunction at not knowing the essential difference between a wheelbarrow and a locomotive. To be able to make the claim of being fashionably accomplished, one must be ready to regurgitate whole volumes of defunct matter from the myths of a heathen people. I hope the time will soon come when custom will stigmatize the person who would consider even in a semi-serious manner, as a large number did, the predicted collision of the earth with the recent comet.

These values, together with intrinsic value, are variously estimated. Personal interest often has much to do with the selections for the curriculum. It is trite to say that the function of the public schools is not to furnish gratification to the instructor; yet this principle is violated to a large degree by colleges in their demands for admission, and again, possibly, in the schools themselves. These demands have often been made without any demonstration of their pedagogical boses, and there may be no particular anxiety that such justification exist at all.

Physics is an action-study. It is not a study that admits of the usual perfunctory text book recitation. The piles of verbiage that so often lie between the pupil and a clear perception of things is here removed. It is especially hard for our book-worm pupils to undergo the metamorphic changes from the larval state of empty verbalism to the higher state of spontaneous thought.

I have seen verified many times the fact that pupils, by an uninterrupted submission to the verbal teaching of the day for eight or ten years, become set in their habits and notions, so that they lose almost wholly the pliability and suppleness of mind that a normal child naturally possesses. The kindergarten starts the pupil right, but he is sidetracked long before he graduates from the high school. I have found not a few pupils in the third year of the high school who, when given a rectangular block to measure and calculate its volume, did not know the first thing to be done. These pupils had certainly done such work on paper in the antiquated book style; but they were quite helpless when asked to do the real thing itself. This accomplishment is nothing in itself, but the case cited illustrates how we so often fail to give the pupil the power we suppose him to be getting.

The study of physics may be developed along base and mercenary lines. Its intrinsic worth may be measured by the bread and butter scale, while its real intrinsic value, the disciplinary and the ethical, is ignored. As a legitimate educational agent, the study presents three phases: it is an information subject, a disciplinary subject and an ethical subject. By its ethics, I mean much more than is usually included in discipline.

Our study presents a vast treasure of fact. It is an information subject in the best sense. It alone can make intelligible the world of matter and force in which we live. It has come to be a fact, whether admitted or not, that no person is liberally educated, whose interest in his material environment, as well as in other branches of knowledge, is not strong enough to induce a wide familiarity with the causes and sequences of natural phenomena. The principles of physics are now applied in the arts in a thousand forms. These are popularly not often clearly understood; for they have become so common that they arouse no thought as to their nature. I feel the truth of Drummond's statement that nothing is needed so much as the rejuvenescence of the commonplace. We have made feeble efforts at this, but such work is undoubtedly hindered by a fear of the attacks of ignorant criticism. Let us be able to discuss with force the motives and characters of the great factors in history; let us take great pride in our power to read with interest and pleasure ancient and modern classics; but let us not be alienated from the contemplation of nature in which we move and have our temporal being; let us not encase our lives against the ministry that she waits to perform for mind and body. Otherwise, no broad sympathy, no noble impulses, no true estimate of life, can come. If we could hope at the end of our academic period to be translated from this life, in which the truest welfare is secured only by an intelligent adjust-

ment of the outer man to his physical surroundings, then we might well continue to neglect the present and the tangible and to consume our time in dreaming of the insipid characters that have preceded us to the land of shades.

Physics, in its elements, is a study of the concrete. It is well known that a child's vocabulary grows just as the language of the race has grown—from the concrete to the abstract. The processes of physics may be the only way of clearing up the meaning of a word long used in a vague manner. Such words as friction, resistance, force, power, vacuum, exhaust, and many others take on a new value and are henceforth used with vigor.

In the second place, physics has a large disciplinary value. It is an observational study, and hence fulfills the first of our requiremets of a school subject. It gives precision to the senses and makes the individual capable of discerning the facts of the material world and afterwards those of the mental world. The schools should give a child a many sided development, and a large part of this must be done by widening and deepening those natural channels by which nearly all knowledge and food for thought comes.

Our subject fulfills the second requirement in that, when properly treated, it is a record-making study. The pupil transcribes from nature to his note book the facts of the science. He sees, in this process, what authorities on the subject have had to do before him; he can begin to realize how real contributions to knowledge are made, and how all learning has come to its present state. He is guarded from falling into the common error of supposing that there is a certain degree of sanctity inherent in books; for he sees how books are made. There is a lurking notion that fiction is converted into fact by putting it into print.

The third requirement is fulfilled, that the child must be taught to compare, group and infer justly. After the pupil has collected in the laboratory a set of facts, apparently not very closely connected, he commences the study of what he has recorded. The mind is now called upon for its crowning effort, the child must think, reason, judge. It is not geometrical reasoning where the mind moves in ready made grooves, but moral reasoning, where the mind cannot act in a mechanical way. I am confident that the power gained by the latter admits of a wide application. If the schools cannot provide this power, then they must plead guilty to the charge that we have failed.

In the last analysis, there is but one thing worthy of the desires and the efforts of the human soul: a mind well disciplined in rendering readily wise judgments concerning the questions of life. The misfortunes and failures of life have their causes ultimately

in the inability to reason, in a lack of good judgment. The pupil is strongly equipped against these reverses, if he has been trained to count the cost of an undertaking, if he has learned that everything has a cause, and that, as the cause, so the effect. In other words, he must know that nowhere is there chaos, neither in the social world nor in the material world. I am aware of the unwelcome fact that the schools can, at present, only partially prepare the way for this. Although there comes, even now, from teachers and public in almost every quarter, the news that the public schools are conquering the strongholds of ignorance and immorality all along the line. That this is optimistic is evidenced by the fact that the high hopes, to which it leads, are not fully realized; and, as a consequence, some of the greatest educators of our nation have brought serious charges against us. The moment is a critical one, and calls for something more than platitudes of self-praise.

Again, the petty superstitions, relics from our savage ancestors, must vanish when the reign of common sense arrives; e. g., rites, numbers and formulas will then have no special significance. The pupil will have been trained to ask, at every turn, the cause of things. There will have been created in him the speculative interest.

According to our criterion, the fourth demand of a school subject is that it train to express cogently the results of observation and thought. Ordinarily, composition work tries to draw from the pupil's mind something that never really existed there. Thoughts must precede expressions. Our method in physics is a thought process, where the thinking must be clear. No expression of thought can have force unless the substance stands out clear in the mind. So physics both furnishes the matter and provides for the mental digestion of the same. Hence the pupil can get here the prerequisites of cogent expression.

In discussions on the content of studies, natural science is often dismissed with the remark that it, as a matter of course, has no ethical content. To be sure, there is no place in it for doctrines and discussions on morality; but this should be true, also, for those subjects that are regularly counted as ethical. The study of physics can be made to react more strongly on the moral nature than is generally admitted. Without following this idea farther, I will add the words of President Eliot: "To make a scrupulously accurate statement of a fact observed, with all needed qualifications and limitations, is as good a training of the conscience as secular education can furnish."

In addition to the above a number of grade meetings were held

by the supervisors, and several small special meetings by the superintendent, while so many teachers assembled to hear the following speakers that the occasions on which they spoke may be classed as teachers' meetings: Dr. Swartz before the associated round tables, Supt. Balliet before the graduates of the training school, Mr. Henry T. Bailey at the reception of the Tice Research Art Club and again at the exhibit of the free evening drawing school.

Grade Representatives.

[At the request of the superintendent, the teachers of each grade below the seventh elected at the beginning of the year three of their number to be Grade Representatives, to be ready on call during the year to meet the superintendent or supervisors and to voice opinions of the teachers of their grade upon all matters of importance connected with the work—the object being to bring all the members of the teaching body into closer relations with the management.]

First Grade.

Ida E. Finley,
Mary McGillicuddy,
Grace L. Hayes.

Second Grade.

Alice E. Bentley,
Lizzie E. Finlay,
Lucy E. Titus.

Third Grade.

Eleanor M. Jollie,
Alice L. Currier,
Jennie B. Jenks.

Fourth Grade.

J. Alice Davis,
Sarah L. Keenan,
Myra A. Bumstead.

Fifth Grade.

Julia S. Avery,
Estella F. Scott,
Annie Breen.

Sixth Grade.

Isabel S. Coleman,
Myra S. Robinson,
Grace M. Grant.



Membership and Attendance—1881-1896.

The following table shows the comparative condition of the schools as a whole for the last sixteen years in the several items given :—

YEARS.	Average No. Belonging.	Average Attendance.	Number in High School.	No. in Grammar Schools.	Number in Intermediate Schools.	Number in Primary Schools.	Kindergarten.	Cost per week for Teachers' Wages.
1881	2146	1954	60	131	575	1088	....	$577 00
1882	2380	2087	73	144	622	1248	....	606 75
1883	2306	2168	81	150	638	1307	....	641 50
1884	2690	2443	99	168	752	1363	....	699 25
1885	2844	2696	102	514	792	1188	....	773 00
1886	2967	2727	111	557	807	1252	....	837 00
1887	3139	2875	114	526	784	1451	....	968 62½
1888	3172	2784	105	464	923	1392	....	1134 81
1889	3387	3089	130	443	887	1890	28	1247 98
1890	3278	2968	151	608	1454	2806	33	1302 67
1891	3130	2868	156	651	1328	2423	55	1463 75
1892	3145	2868	170	586	1170	2550	74	1562 75
1893	3253	2961	226	438	722	1769	98	1684 25
1894	3524	3220	236	464	922	1773	129	1819 44
1895	3592	3291	248	420	988	1814	122	1825 30
1896	3724	3355	233	392	1050	1929	120	1878 00

Census Returns.

Children returned by the census taken January, 1896 . . 6670

Membership and Attendance.

1895—1896.

NAMES OF TEACHERS.	Number Boys Registered.	Number Girls Registered.	Number over 15 years old.	Average No. Belonging.	Average Daily Attendance.	Percentage of Attendance.	Number of Visitors.
HIGH SCHOOL.							
William W. Curtis	121	152	234	233	225	97	60
HANCOCK STREET.							
Mary L. Cummings	75	39	..	53	50	95	54
Sarah M. Ryder	31	35	..	4	38	92	60
Mabel Short	29	36	..	35	33	93	78
Sarah E. Ames	31	37	1	46	40	85	31
Nellie Emerson	28	22	..	34	30	88	95
Flora Howes	42	34	.	37	30	88	49
FOURTH WARD ROOM.							
Emma F. Jenkins	17	12	2	20	19	93	30
LAUREL HILL.							
Ellen McKeough	33	28	..	42	38	91	77
Ellen McFee	28	23	..	36	32	90	76
Annie G. Crane	27	30	..	45	40	90	85
Ellen C. Martin	36	29	..	42	38	90	38
FAIRLAWN.							
Mary E. Jenkins	22	19	..	33	30	91	85
Lena T. Paine	29	29	..	33	29	86	54
SMITHFIELD AVENUE.							
Margaret L. McCudden	39	46	..	50	44	84	41
CHURCH HILL.							
Lendo G. Smith	28	26	9	46	44	95	61
Louise H. Greene	19	22	..	32	29	95	36
Louise P. Remington	14	17	..	28	26	93	44
Myra S. Robinson	30	27	..	42	40	94	84
Minna C. Steinberg	29	28	..	39	35	88	70
Myra A. Bumstead	31	23	..	42	35	84	74
Amelia M. Perry	38	27	..	48	43	89	162
A. Maude Emerson	35	26	..	43	38	89	153
Mary McGillicudy	53	57	..	59	51	86	271
CHERRY STREET.							
M. Etta Elliott	15	25	..	32	29	90	78
Carrie Greene	21	17	..	28	26	94	58
Marion D. Bennett	23	20	..	29	26	91	69
Lizzie E. Finlay	40	38	.	56	50	89	230
Jennie L. Ellis	38	44	..	53	44	84	171

(1895–1896 Continued.)

NAMES OF TEACHERS.	Number Boys Registered.	Number Girls Registered.	Number over 15 years old.	Average No. Belonging.	Average Daily Attendance.	Percentage of Attendance.	Number of Visitors.
CAPITAL STREET.							
Annie L. Chatterton	32	25	1	38	35	92	60
Fannie R. Evans	34	49	..	42	36	86	66
QUINCY AVENUE.							
Sarah L. Keenan	28	19	..	29	27	92	45
Ruth C. Earle	40	35	..	44	33	85	47
GARDEN STREET.							
William P. Mudge	16	12	4	26	25	97	35
L. Frances Estes	13	18	11	28	27	95	28
Mary E. Fredenburgh	19	23	4	34	30	88	62
Grace M. Grant	24	26	1	42	39	93	114
Emogene Allyn	24	10	..	24	22	92	68
Mary T. Johnson	22	24	..	31	28	90	69
J. Alice Davis	23	22	..	30	27	88	52
Florence B. Howland	31	27	..	32	32	87	60
Eleanor M. Jollie	24	24	..	26	24	91	165
Florence G. Thompson	35	21	..	45	41	90	81
Marianne McGinn	35	26	..	46	41	87	195
Carrie M. Bellows	51	42	..	50	44	87	164
Sarah Brayton	28	36	..	36	30	86	228
WASHINGTON STREET.							
Mary T. S. Carey	18	13	1	22	20	89	82
Ellen C. Brennan	52	32	..	46	39	83	47
CLEVELAND STREET.							
Annie Breen	18	11	..	21	20	93	44
Mary Geary	36	23	..	38	36	92	34
Elsie Waterman	37	22	..	42	38	89	45
Jennie Jeffers	43	21	..	30	26	85	25
PIDGE AVENUE							
Annie M. Burns	40	29	..	55	51	93	69
Maude U. Peters	31	28	..	36	31	87	43
SOUTH WOODLAWN.							
M. Agnes Boles	23	35	..	38	34	88	99
GROVE STREET.							
Elmira E. Whiting	14	14	7	27	25	95	70
S. Fanny Eddy	15	16	8	30	28	92	50
Mary D. Pollard	19	19	4	30	29	91	80
Isabel S. Coleman	18	14	..	27	25	92	127
Annie M. King	16	29	..	38	33	88	40
Alice L. Currier	31	22	.	37	33	88	248
Alice E. Bentley	29	17	..	34	32	92	139
Grace L. Hayes	21	31	..	31	26	83	147
Susie Greeley	40	64	.	54	46	85	338
SUMMIT STREET.							
Florence I. Shepard	32	17	1	36	33	89	16
Ida E. Finley	15	29	..	31	25	83	91
BROOK STREET.							
Julia S. Avery	8	24	..	28	25	88	40
Lydia A. Paine	33	32	..	47	42	88	27

(*1895–1896 Continued.*)

NAMES OF TEACHERS.	Number Boys Registered.	Number Girls Registered.	Number over 15 years old.	Average No. Belonging.	Average Daily Attendance.	Percentage of Attendance.	Number of Visitors.
DIVISION STREET							
Estella F. Scott	28	18	..	40	36	92	50
Elizabeth A. O'Brien	28	23	..	40	35	87	54
Lucy E. Titus	32	19	..	40	35	88	88
Frances J. Moroney	18	19	..	21	18	83	65
PROSPECT STREET.							
Fannie R. Carpenter	30	24	..	38	33	85	37
LINCOLN AVENUE.							
Sarah L. Cullen	29	29	..	44	37	83	12
BROADWAY.							
Frank W. Jones	34	22	5	45	42	93	96
Mahala W. French	30	25	1	46	44	95	46
Elizabeth Ullrich	28	21	..	35	33	94	46
Mary L. Carpenter	28	33	..	34	31	91	33
Jeanette Fairbrother	43	26	..	46	41	90	47
Maud Slocum	36	29	..	41	37	89	84
Lena P. Joyce	36	35	..	62	56	90	83
EAST STREET.							
Mary Hatch	18	24	1	29	27	91	130
Ernestine Patterson	33	21	..	39	37	94	85
Mary E. McCabe	27	30	..	38	35	91	121
Sarah R. Smith	31	41	.	47	41	87	83
MIDDLE STREET.							
Adelaide A. Cozzens	57	27	1	27	24	92	40
Jennie B. Jenks	36	17	..	38	33	89	77
Louisa Cushman	39	25	..	36	31	86	50
Hattie J. French	29	38	..	30	26	83	171
CENTRAL AVENUE.							
S. Maria Glasby	29	16	..	34	32	95	40
E. Agnes Crofts	35	34	..	33	29	86	46
Grace M. Fairweather	23	21	..	37	34	91	28
Ellen F. Finlay	25	20	..	28	25	89	40
Margaret G. Butler	30	21	..	37	33	89	33
Total	2842	2607	296	3724	3355	90	7300

List of Teachers at Close of School Year.

NAME.	Date of Commencing Service.	Grade.
HIGH SCHOOL.		
William W. Curtis	September, 1888	
Henry H. Hastings	September, 1891	
William H. Powers	September, 1895	
William T. Jackson	September, 1894	
William A. Newell	November, 1892	
Lizzie Little	September, 1892	
Cora H. Dimpsey	September, 1893	
Amy S. Rhodes	September, 1893	
Ella M. Adams	September, 1893	
Mary G. Osborn	April, 1895	
HANCOCK STREET SCHOOL.		
Mary L. Cummings	April, 1889	V
Sarah M. Ryder	September, 1888	IV
Mabel Short	September, 1895	III
Sarah E. Ames	September, 1895	II
Nellie Emerson	February, 1889	I
Flora Howes	April, 1892	I
Emma F. Jenkins (W. R.)	September, 1895	VII
LAUREL HILL SCHOOL.		
Ellen M McKeough	February, 1896	IV
Ellen McFee	September, 1886	III
Annie G. Crane	September, 1887	II
Ellen C. Martin	December, 1884	I
FAIRLAWN SCHOOL.		
Mary E. Jenkins	December, 1894	II, III
Lena T. Paine	April, 1894	I
SMITHFIELD AVENUE SCHOOL.		
Margaret L. McCudden	May, 1884	I—IV
CHURCH HILL SCHOOL.		
Lendo G. Smith	May, 1894	IX
Harriet R. Hopkins, Assistant	September, 1885	VIII
Louise H. Greene	May, 1885	VII
Louise P. Remington	October, 1879	VI
Myra S. Robinson	April, 1868	V
Minna Steinberg	October, 1894	IV
Myra A. Bumstead	September, 1895	III
Amelia M. Perry	April, 1894	II
A. Maude Emerson	November, 1887	I
Mary McGillicuddy	September, 1890	
Emma L. Crawford, Assistant	March, 1894	
CHERRY STREET SCHOOL.		
M. Etta Elliott	February, 1885	V
Carrie Greene	September, 1873	IV
Marion D. Bennett	February, 1889	III
Lizzie E. Finlay	September, 1891	I, II
Nellie F. Martin, Assistant	March, 1894	
Jennie Ellis	February, 1891	I
CAPITAL STREET SCHOOL.		
Annie L. Chatterton	December, 1884	VI
Fannie R. Evans	September, 1893	I
QUINCY AVENUE ANNEX.		
Sarah L. Keenan	September, 1883	IV
Ruth C. Earle	September, 1895	II

(List of Teachers Continued.)

NAME.	Date of Commencing Service.	Grade.
GARDEN STREET SCHOOL.		
William P. Mudge	September, 1892	IX
Hattie L. Cole, Assistant	September, 1891	
L. Frances Estes	September, 1883	VIII
Mary E Fredenburgh	September, 1895	VII
Grace M. Grant	February, 1892	VI
Emogene Allyn	December, 1879	V
Mary T. Johnson	February, 1891	IV
J. Alice Davis	September, 1887	IV
Florence B. Howland	September, 1883	III
Eleanor M. Jollie	February, 1894	III
Florence G. Thompson	November, 1887	II
Marianne McGinn	September, 1891	II
Carrie M. Bellows	March, 1895	I
Mabel W. Sherman, Assistant	April, 1895	
Sara S. Brayton	April, 1892	K'g
Emma Husband, Assistant	September, 1893	
WASHINGTON STREET ANNEX.		
Mary T. S. Carey	May, 1884	V
Ellen C. Brennan	October, 1894	I
CLEVELAND STREET SCHOOL.		
Annie Breen	September, 1888	V, VI
Mary J Geary	February, 1891	III, IV
Elsie C. Waterman	November, 1887	II
Jennie Jeffers	January, 1886	I
PIDGE AVENUE SCHOOL.		
Susanna Reed	April, 1896	
Charlotte W. Perry, Assistant	March, 1893	
Maude U. Peters	September, 1895	
SOUTH WOODLAWN SCHOOL.		
M. Agnes Boles	September, 1890	I
GROVE STREET SCHOOL.		
Mary L. P. Shattuck, Principal	October, 1893	
Elmira E. Whiting	September, 1893	IX
S. Fannie Eddy	September, 1877	VIII
Mary D. Pollard	November, 1891	VII
Isabel S. Coleman	September, 1891	VI
Annie M. King	September, 1895	IV
Alice L. Currier	September, 1889	III
Alice E. Bentley	September, 1891	II
Grace L. Hayes		I
Susie Greeley	September, 1890	K'g
A. Mabel Perkins, Assistant	September, 1894	
Pauline Tappan, Assistant	December, 1895	
Class of '96 — Pupil Teachers: Jessie M. Bowen		
Class of '96 — Pupil Teachers: Marguerite E. Dwyer		
Class of '96 — Pupil Teachers: Anna J. Farrell		
Class of '96 — Pupil Teachers: Clarinda S. Horton		
Class of '96 — Pupil Teachers: Sarah J. Kirk		
Class of '96 — Pupil Teachers: Julia I. Pearce		
Class of '96 — Pupil Teachers: Irene A. Pierce		
Class of '96 — Pupil Teachers: A. Amelia Powers		
Class of '96 — Pupil Teachers: Katherine F. McGinn		
Class of '96 — Pupil Teachers: Ellen M. McKeough		
Class of '97 — Pupil Teachers: Susie F. Almy		
Class of '97 — Pupil Teachers: Adaline H. Bliss		
Class of '97 — Pupil Teachers: Bessie B. Boles		
Class of '97 — Pupil Teachers: Margaret A. Clark		
Class of '97 — Pupil Teachers: Elisabeth M. Fletcher		
Class of '97 — Pupil Teachers: Mattie Bell Jackson		
Class of '97 — Pupil Teachers: A. Maud McGrath		
Class of '97 — Pupil Teachers: Hattie D. Munroe		
Class of '97 — Pupil Teachers: Mary Josephine O'Neill		
Class of '97 — Pupil Teachers: Mary L. Peacock		
Class of '97 — Pupil Teachers: Bertha Amie Rogers		

(*List of Teachers Continued.*)

NAME.	Date of Commencing Service.	Grade.
SUMMIT STREET ANNEX.		
Florence I. Shepard	September, 1893	IV
Ida E. Finley	January, 1893	I
BROOK STREET ANNEX.		
Julia S. Avery	September, 1886	V
Lydia A. Paine	September, 1864	I, II
DIVISION STREET SCHOOL.		
Estella F. Scott	June, 1884	V, VI
Elizabeth A. O'Brien	September, 1883	III
Lucy E. Titus	February, 1892	II
Frances J. Moroney	October, 1885	I
PROSPECT STREET SCHOOL.		
Fannie R. Carpenter	September, 1884	I—III
LINCOLN AVENUE SCHOOL.		
Sarah Cullen	September, 1890	
BROADWAY SCHOOL.		
Frank W. Jones	April, 1894	VIII, IX
Harriet M. Beale, Assistant	September, 1895	
Mahala W. French	December, 1874	VII
Elizabeth Ullrich	February, 1894	V
Mary L. Carpenter	September, 1895	IV
Margaret McGirr, Substitute		III
Maude Slocum	September, 1893	II
Lena P Joyce	April, 1895	I
Jessie M. Bowen, Assistant	February, 1896	
EAST STREET SCHOOL.		
Mary Hatch	January, 1885	VI
Ernestine Patterson	September, 1894	IV
Mary E. McCabe	February, 1892	II
Sarah R. Smith	March, 1895	I
Marguerite E. Dwyer, Assistant	February, 1896	
MIDDLE STREET SCHOOL.		
Adelaide A. Cozzens	September, 1894	
Jennie B. Jenks	June, 1885	III
Louisa Cushman	September, 1884	I
Hattie J. French	February, 1892	K'g
Ellen Holmes, Assistant	April, 1893	
CENTRAL AVENUE SCHOOL.		
S. Maria Glasby	September, 1893	V, VI
E. Agnes Crofts	April, 1894	IV
Grace M. Fairweather	May, 1894	III
Ellen F. Finlay	February, 1895	II
Margaret G. Butler	September, 1885	I
MUSIC TEACHER.		
Albert C. White	September, 1876	
DRAWING TEACHER.		
Geneva C. Tice	September, 1890	
NATURE STUDY AND PENMANSHIP.		
Julia M. Talbot	September, 1894	
PHYSICAL TRAINING.		
S. May Taylor	September, 1892	

Evening School Teachers.

EVENING DRAWING SCHOOL.

William A. Newell, Principal,	78 Brook street
Arthur B. Babbitt,	113 Central avenue
Charles H. Springer,	12 Slocum street, Providence
Alfred J. Roberts,	67 Abbott street
George W. Bartlett,	32 Gooding street
Charles F. Ware,	79 Park Place
C. H. Bennett,	157 Pine street
P. Waterman, Clerk	22 Star street

EVENING HIGH SCHOOL.

Henry H. Hastings, Principal,	256 North Main street
Albert Beech,	70 Thomas avenue
Howard D. Kenyon,	391 Pawtucket avenue
Lellan J. Tuck,	256 North Main street
Cora E. Dimpsey,	10 Maple street
Edna Arnold,	113 Pine street
Mabel Perkins,	188 High street
Adelaide Flemming,	28 Prospect street

EVENING GRAMMAR SCHOOL.

GARDEN STREET.

William H. McKitchen, Principal,	232 Garden street
Isabella A. Clarke,	114 Knowles street
Lena F. Goodfellow,	207 Garden street

William C. Bourne, ... 24 Sisson street
Jeanette S. French, ... 365 North Main street

HANCOCK STREET.

Charles F. Deacon, Principal, ... 32 Carver street
Theodora F. Lord, ... 20 Pine street
Carrie M. Brannan, ... 117 Mineral Spring avenue
Robert S. Emerson, ... 89 Park Place

BROADWAY.

J. Eugene Osgood, Principal, ... 265 Cottage street
Jane I. Jenks, ... 64 Meadow street
Charles McAlice, ... 14 East Cole street
Elizabeth C. Hicks, ... 126 Clay street
A. Amelia Powers, ... 15 Lupine street
Annie Hogan, ... 110 Mineral Spring avenue

GRADUATION EXERCISES

OF THE

TRAINING SCHOOL FOR TEACHERS

JANUARY 30, 1896.

AFTERNOON PROGRAMME.

1.30—3.00 P. M.

MISS JULIA I. PEARCE, ... Grade 1, Room 10

Music. Form and Drawing. Reading. Number.
Language—A Little Holland Girl.

MISS CLARINDA S. HORTON, ... Grade II, Room 8

Penmanship. Nature Study—Coal. Reading—Coal.
Spelling. Number.

MISS ELLEN MCKEOUGH, ... Grade III, Room 7

Reading—The River. Geography—The River in Winter.
Spelling. Nature Study—The Pines.
Number—Multiplication Table.

MISS A. AMELIA POWERS, ... Grade V, Room 3

Number—Cubical Contents. Language—Pronouns.
Geography—Pacific Highlands. Science—Iron.

MISS MARGUERITE E. DWYER, ... Grade VI, Room 5

Penmanship. Music. Geography—Spain.
Language—Moors and Alhambra.

MISS JESSIE M. BOWEN, ... Grade VII, Room 4

Language—The Adverb. Music. Science—Pawtucket Water Works. Geography—Vegetable Products of the East Indies.

Physical exercises, singing and other general exercises in all rooms.

The topics printed in the programme will introduce advance work for the pupils.

EVENING PROGRAMME.

8.00 P. M.

PIANO SOLO . . . . . .

PRAYER . . . . . .

ADDRESS TO THE GRADUATES . . . . . .

SUPT. THOMAS M. BALLIET, SPRINGFIELD, MASS.

WORDS OF ACKNOWLEDGEMENT, . . BY A GRADUATE.

PRESENTATION OF THE CLASS TO THE CHAIRMAN OF THE SCHOOL COMMITTEE BY THE PRINCIPAL.

PRESENTATION OF DIPLOMAS, CHAIRMAN OF SCHOOL COMMITTEE.

Names of Graduates.

ALICE AMELIA POWERS,
JULIA IRENE PEARCE,
JESSIE MAY BOWEN,
CLARINDA SHERMAN HORTON,
ELLEN MARIA MCKEOUGH,
MARGUERITE ELLEN DWYER.

GRADUATION EXERCISES

OF THE

PAWTUCKET HIGH SCHOOL

CLASS OF 1896.

TUESDAY EVENING, JUNE 23,

AUDITORIUM.

ORDER OF EXERCISES.

Motto "Carpe Diem."

SINGING, ... School

INVOCATION, ... Rev. Edward L. Houghton

RESPONSE, ... School

ORATION, ... "What We Owe to Holland."

John Lawrence Hood.

ESSAY, ... "The Women of Shakespeare."

Belle Chace Russell.

MUSIC—"I Waited for the Lord," . . . . *Mendelssohn*

Duet and Chorus—Senior Class.

RECITATION—"The Painter of Seville, ... *Wilson*

Edith Dolly Davison.

ESSAY, ... "Friends."

Daisy May Capron.

SONG—"For All Eternity," . . . . . *Mascheroni*

Alice Selina Collins.

ESSAY, . "American Womanhood in the Nineteenth Century."

Lizzie Evangeline Keppie.

Declamation, ...

Extract from Speech of Hon. Robert G. Cousins in the House of Representatives.

George Russell Thurber.

MUSIC, { *a* "Softly Now the Shadows Fall;" (Slumber Song)—*L. B. Marshall.*
b "Let Me Hearken to Thy Strain."—*W. E. Owen.*

Senior Girls.

ESSAY, ... "Our Windows."

Gertrude Mason Whipple.

RECITATION—"The Angels of Buena Vista," . . *Whittier*

Alice Selina Collins.

VIOLIN SOLO—"Scene De Ballet," . . . *De Beriot*

Charles Augustus Hawes.

RECITATION—"The Curse of Regulus," . . . *Kellogg*

Sara Helen Boyle.

CLASS HISTORY, ... Ansel Leopold Strauss

SONG—"Sweet Land of Dreams," . . . . *Ashford*

Mary Agnes Demers.

PRESENTATION OF DIPLOMAS.

Henry Barker, Chairman School Board.

MUSIC, { "The Heavens are Telling."
(From the Oratorio of the Creation)—*Haydn.*

Full Chorus—School.

ADDRESS TO THE GRADUATING CLASS.

Rev. Charles W. Holden.

Mr. A. C. White, ... *Musical Director*

Miss Hannah C. Darling, ... *Accompanist*

GRADUATES OF HIGH SCHOOL.

COLLEGE PREPARATORY COURSE.

Ralph Tillinghast Barnefield,
Kizzie Asenath Burlingame,
Bernhard Cohen,
Alice Selina Collins,
Mary Taft Grout,
Charles Augustus Hawes,
John Lawrence Hood,
Herbert I. Mathewson,
Mary Elizabeth O'Brien,
Gertrude Frances O'Connor,
Belle Chace Russell,
Henry Meyer Shartenberg,
Lucy English Small,
Ansel Leopold Strauss,
Nellie Agnes Vance,
Gertrude Mason Whipple.

ENGLISH AND CLASSICAL COURSE.

Sara Helen Boyle,
Minnie Augustine Buckley,
Daisy May Capron,
Edith Dolly Davison,
Clara Loretta Demers,
Mary Agnes Demers,
Elizabeth Bernadine Fanning,
Leo Francis Farrell,
Eliza Agnes Gallagher,
Bessie Almira Gatchell,
Carrie Louisa Hicks,
Maud Wendell Kenyon,
Lizzie Evangeline Keppie,
Edna Darling Rice,
Clara Elsie Rogers,
Mary Emeline Steere,
George Russell Thurber,
Nellie Wright Wheeler,
Esther Gardiner White,
Mary Waugh White.

ENGLISH COURSE.

Nellie Valentine Cobb,
Minnie Elizabeth Clarke,
Joseph Michael McCaffrey,
Ellen Cecelia Meagher,
Carleton Eugene Taft.

HONOR PUPILS.

FIRST HONOR.

Kizzie Asenath Burlingame, Belle Chace Russell.

SECOND HONOR.

Ralph Tillinghast Barnefield,
Sara Helen Boyle,
Daisy May Capron,
Bernhard Cohen,
Alice Selina Collins,
Edith Dolly Davison,
Mary Taft Grout,
John Lawrence Hood,
Maud Wendell Kenyon,
Lizzie Evangeline Keppie,
Clara Elsie Rogers,
Lucy English Small,
Nellie Agnes Vance,
Gertrude Mason Whipple.

THIRD HONOR.

Elizabeth Bernadine Fanning,
Charles Augustus Hawes,
Mary Elizabeth O'Brien,
Gertrude Frances O'Connor,
Mary Emeline Steere,
Ansel Leopold Strauss,
Carleton Eugene Taft,
George Russell Thurber,
Nellie Wright Wheeler,
Esther Gardiner White,
Mary Waugh White.

TWO YEARS' COURSE.

Horace W. Aldrich,
George A. Briggs,
Mary Matilda Connolly,
Clara E. Curran,
Lyman M. Darling,
Ernest G. Fuller,
Charles P. McAlevy,
Evelyn L. Short.

GRADUATION EXERCISES

OF THE

Pawtucket Grammar Schools

CLASS OF 1896.

THEME—PAWTUCKET.

AUDITORIUM,

FRIDAY, JUNE 26.

PROGRAMME.

Our City.

1. CHORUS—God of all Creation, ...
2. PRAYER, ... Rev. Whitman L. Wood
3. RESPONSE—Softly Now the Light of Day, . Chorus
   Music by *Ernst Clarner.*
4. RECITATION—Selection from an Address by President Wayland on the Dedication of a School House in Pawtucket in 1846.
   Flora S. Curtis.
5. ESSAY, ... Early History of Pawtucket
   Thomas W. Winstanley.
5. ESSAY, ... The Wood Working Industry
   Maud H. Arnold.
7. CHORUS—Song of the Old Bell, ... *Barri*
8. DECLAMATION—Our National Responsibility, *Thomas K. King*
   Edward J. Ryan.

9. ESSAY, ... A History of Industries
Mary F. Adams.

10. GIRLS' CHORUS, { (*a*) The Image of a Rose, . *G. Reichardt*
(*b*) Festival Song, . . *Franz Abt*

11. ESSAY, ... Growth of the Iron Industry
Edward A. Ratthei.

12. ESSAY, . . . A Sketch of the Educational Work
Annie W. Dunwoodie.

13. GYMNASTICS, ...

14. ESSAY, ... Textile Industries
Charles J. Emerson.

15. RECITATION—The Spirit of '76, . *Mrs. Minerva A. Sanders*
Carrie T. Adams.

16 CHORUS—Anchored, Arr. from M. Watson, by *G. A. Veazie*

17. ESSAY, ... Other Imported Industries
Charles A. Goulburn.

18. ESSAY, ... Patriotic and Military History
Charles F. Horton.

19. RECITATION—A Visit to Pawtucket after One Hundred Years, *Edward P. Tobie.*
Marion G. Harrington.

20. CHORUS—The Birds Let Loose, . . . *Beethoven*

21. ADDRESS TO THE GRADUATES WITH PRESENTATION OF DIPLOMAS.
Hon. Henry E. Tiepke, Mayor.

22. CHORUS—In Armour Bright, Arr. from Theo. Bonheur, by *G. A. Veazie.*

GRADUATES OF GRAMMAR SCHOOLS.

CHURCH HILL.

Carrie Thornton Adams,
3 Mary Eliza Adams,
Ellery Fowler Anderton,
3–4 Blanche Eliza Andrews,
Joseph James Bodell,
3 Mabel Cora Bourassa,
William Dexter Bucklin,
William Mitchell Clark,
1 David Beck Collins,
Henry Oscar Crandall,
George Orville Dary,
1 Lewis Brown Dary,
1 Herbert Franklin Davison,
2 Emma Louisa Donath,
Lottie Estella Doughty,
William Young Easterbrooks,
Charles Joseph Emerson,
Nathan Byron Fuller,
3 Eva Estella Grant,
Ethel Luella Havens,
William Kenyon Hyde,
Fenner Aldrich Irons,
Gertrude Amelia Jenks,
2 Alice Abbie Lewis,
James McCaffrey,
George Maxwell McKenzie, Jr.,
Jennie Veronica Noonan,
Fred William O'Connor,
Leon Brewer Parker,
Harry Alton Patterson,
James Clifford Rankine,
Gertrude Milton Read,
Olin Fred Rundlett,
1 Edwin Garzia Scott,
Florence Lavery Shattuck,
2 Ethel Isabel Steere,
3 Rosa Strauss,
Lucy Hawthorne Swift,
2 Hope Newell Walker,
Arthur Edwin Whitney,
Samuel Wightman.

GARDEN STREET.

1 Eugene Anderton,
Maud Holdridge Arnold,
Leon Clifton Boss,
3–2 Nettie Maria Boss,

845510

Edith Louise Bullock,
Eugene Fabian Aloysius Clarke,
2 Annie Walker Dunwoodie,
Howard Foss Esten,
Martin Joseph Flynn,
Frank Arthur Gardner,
3–2 Ida Lewis Harper,
Edith Evelyn Haskins,
1 Robert Alexander Kirk,
3 Regina Melanie Maynard,
2 Viola May Meader,
3 Agnes Mabell Robinson,
Edward Joseph Ryan,
3 Rosella Gertrude Salisbury,
4 Sadie Elizabeth Salisbury,
1 Frederick Furber Simons,
1 Arthur Manning Slocum,
Carl Augustus Studley.

GROVE STREET.

Frank Royal Abbott,
4–2 Amey Elizabeth Bucklin,
Leon Frederick Baker,
Flora Skolfield Curtis,
4 Jessie Florine Chace,
3–2 Lottie May Devlin,
1 Charles Alexander Goulburn,
3–2 Amelia Harrison,
Alice Loraine Johnson,
3 Ada Louise Kingsley,
1 Charles Bently Lord,
Hugh Ernest Arthur Linton,
Gertrude Louise Preston Morrison,
Walter Morse Mason,
William Bradford McKay,
3 Mabel Rebecca Mathewson,
1 Elmer Warren Nye,
Mary Ellen Perry,
Emily Judson Pearce,
Robert Meadowcroft Pollard, Jr.,
Mary Frances Paine,
1 Albert Manton Read,
3–2 Lillie Merrett Richards,
Berrick Schloss,
Eugene Sweet,
Thomas William Winstanley.

BROADWAY.

4–3 Mary E. Blackmon,
3 Bertha J. Burlingame,
1 Ansel E. Cheek,
3–2 Ella E. Cockcroft,
2 Sarah C. Demers,
1 Edward F. Farrell,
D. Everett Gage,
2 Rose A. Giblin,

2 Katharine T. Hanley,
Marion G. Harrington,
3 Grace C. Hollingworth,
Charles F. Horton,
Archibald Livingstone,
Peter J. McArdle,
Annie L. Powers,
Edward A. Ratthei,
1 George W. Rowse, Jr.,
William E. Watjen,
1 Irving K. White.

1—Boys' Gymnastics. 2—Girls' Gymnastics. 3—Girls' Chorus. 4—Piano or Violin Solo.

COURSES OF STUDY

OF THE

PAWTUCKET HIGH SCHOOL.

College and Scientific School Preparatory Course.

FIRST YEAR.

Required—Algebra, 5; English, 4; Greek History, 3; Latin, 5.

SECOND YEAR.

Required—Algebra, 2; English, 2; Roman History, 3.

Elective (Take *two* subjects)—Latin, 5; Science and Drawing, 8; Greek, 5; German, 5; French, 5.

JUNIOR YEAR.

Required—Algebra, 1; English, 3; Pl. Geometry, 3.

Elective (Take *one* in *each* group)— { Latin, 5 / Science and Drawing, 8 } { Greek, 5 / German, 5 / French, 5 }

SENIOR YEAR.

Required—Pl. Geometry, 2; English, 3.

Elective (Take *one* in *each* group) — { French, 5 / German, 5 } { Latin, 5 / Solid Geometry and Advanced Algebra, 5 } { Greek, 5 / German, 5 / French, 5 / Adv. Physics, 5 / " Chemistry, 5 / " Mathematics, 5 / " Drawing, 8 }

General Course.

FIRST YEAR.

Required—Algebra, 4; English, 5; Ancient History, 3.

Elective (Take *one* subject)—Latin, 5; German, 5; French, 5; Bookkeeping and Drawing, 6; Botany and Zoology, 5

SECOND YEAR.

Required—English, 4; Mediæval History, 3.

Elective (Take *two* subjects)—Latin, 5; German, 5; French, 5; Commercial Arithmetic 5; Botany and Zoology, 5; Physics, 5.

JUNIOR YEAR.

Required—English, 4; English History and Civics, 3; Pl. Geometry, 3.

Elective (Take *two* subfects)—Latin, 4; German, 4; French. 4; Chemistry, 4; Physics, 4.

SENIOR YEAR.

Required—English, 4; U. S. History and Constitutional Government, 3.

Elective (Take *two* subjects):

Latin, 5; German, 5; French, 5; Chemistry, 5; { Solid Geom, ½ / Adv. Algebra, ½ } 5 { Geology, ½ / Phys. Geog., ½ } 5

{ Astronomy, ½ / Meteorology or ½ / Physiology ½ } 5 Adv. Physics, 5; Adv. Chemistry, 5; { Psychology, ½ / Pol. Economy, ½ } 5

Trigonometry and Surveying, 5; Drawing, 5.

Commercial and Industrial Course.

FIRST YEAR.

Required—Algebra, 4; Bookkeeping, 4; English, 2; Ancient History, 3; Science (Botany and Zoology), 5; Drawing, 2.

SECOND YEAR.

Required—Commercial Arithmetic and Business Practice, 4; Mediæval History, 3; English, 5; Drawing, 1.

Elective (Take *one* in *each* group)— Latin, German, French, } 5 Stenography and Typewriting, Drawing and Descriptive Geometry, } 4

JUNIOR YEAR,

Required—Physics, 4; English History and Civics, 3; English, 4; Drawing, 1.

Elective (Take *one* in *each* group): Bookkeeping (actual business,) Drawing, } 4 Latin, German, French, } 3 Pl. Geometry, Stenography and Typewriting, } 4

SENIOR YEAR.

Required—English, 4; U. S. History and Constitutional Government, 3; Drawing. 1.

Elective (Take 11 hours)—Chemistry, 3; Latin, 3; German, 3: French, 3; Commercial Law and Commercial Geography, 4; Stenography and Typewriting, 4; Drawing and Engineering, 4; Geology and Astronomy, 4; Adavanced Physics, 4; Trigonometry and Surveying, 4.

The College and Scientific School Preparatory Course will be varied in accordance with the requirements of the college chosen. Only those pupils who are exceptionally strong in intellect and health can completely satisfy the demands of the best colleges in four years; hence, in most cases, a fifth (post graduate) year of study is recommended. Students are sent to college on certificates.

Number of recitations per week is indicated by figures.

Vocal Music and Gymnastics once a week for all.

Drawing once a week for pupils in Scientific School Preparatory Course and General Course.

Classes will not be formed in any study for less than ten pupils.

Any language which is begun must be continued *two* years, unless excused for special reasons.

Two foreign languages cannot be begun in the same year.

The General Course must be taken by those who intend to enter the Training School.

PUBLIC SCHOOLS

OF

PAWTUCKET.

COURSE OF STUDY.

FIRST EIGHT GRADES

ABOVE THE KINDERGARTEN.

AUGUST, 1896.

PAWTUCKET:
LEE & UPHAM, BOOK AND JOB PRINTERS.
1896.

INTRODUCTORY.

In the preparation of this Course of Study the supervisors of drawing and nature study and myself have been aided by valuable suggestions from the principal of the training school, the grammar masters, the grade representatives and the other teachers, and I have drawn somewhat freely in literature upon a course of study prepared in 1893 by the former principal of the training school and her associates.

These few words are written at the time of the completion of the course, which was begun about a year and a half ago, and has been printed in installments, one grade at a time. The first twenty-four pages it was decided at the last moment to revise, as without that revision there would have been a certain lack of correspondence between the first and later portions; but no other changes have been made.

GILMAN C. FISHER.

August 1, 1896.

Course of Study.

"There are only two main threads which can and ought to be spun out in both directions (lengthwise and breadthwise)—knowledge of nature and knowledge of humanity; languages are but instruments (to acquire this knowledge). * * * The teacher must qualify the pupil to attain the ends of life by preparing inward power. * * * Every line of study should have its bearing on conduct."—*Herbart.*

It is hoped that this Course of Study will be, like the child's face itself, a perpetual appeal to the intelligence and conscience of the teacher to do the best she can.

It is permissive rather than mandatory—suggestive as a plan of work rather than absolute as a code of requirements.

It may be departed from both as regards omissions and substitutions.

It may be extended by additions.

But the aim in its preparation has been to provide a practical working outline from which few would wish to depart except in minor particulars.

All Grades.

GEOGRAPHY.

In the broad relations it sustains to nature and man, geography becomes a central point of reference and departure in preparing a course of study. It makes a framework or setting for nature study on the one hand and history and literature on the other, uniting with and uniting them.

NATURE STUDY.

In connection with the lessons given, there should be moulding in the lower grades and much sketching in all, as these are the natural expressions of the child and furnish the means of his greatest individuality.

To make the lessons interesting and most beneficial to the lower grades, they should be varied, short and given to small groups of children, each with specimen in hand, when practicable. Conversations and discussions should take the lead in them, the questions "Is what?" "Does what?" being answered, and the teacher aiming always to train the child to accurate seeing and truthful statements.

In addition to the work of the lower grades, that of the upper should be to answer the questions "Why?" and "How?" by individual investigations, never to copy words of another and commit them to memory.

The results of the lessons should be utilized in written language work.

HISTORY AND LITERATURE.

In connection with the lessons given in nature study, the pupils should read or hear stories and learn gems by the best authors. The history and literature should spring spontaneously from the nature study. Mythical biography in the lower grades and historical biography in all the grades should be made prominent; but in the selection of literary topics of all kinds the teacher should be allowed a large measure of individual freedom. What she loves best she will teach best. The highest function of elementary teaching consists in first, selecting subjects of thought from the two great content or thought centres, nature study on the one hand and history and literature on the other, to serve as the basis of the language work and to be instrumental in character training; second, presenting these subjects sympathetically and in a way to evince the living interest of the teacher: for the sharing as well as the selecting activities must be cultivated and mutual enjoyment found in drawing upon the two primal sources, as above indicated, for the materials of the formal and technical studies.

LANGUAGE.

In the broad general sense, language grows out of every study and forms a part of every recitation. All the various branches depend upon it for expression. Hence, nearly the whole school time is taken up with its use. But we must not be blinded by this time proportional. Language is not a centre of instruction. It conveys and clothes but it does not constitute a core. It is formal and external in its nature, acquiring a content by use, but only by use.

In a more specific sense, language embraces reading, spelling, penmanship, composition and grammar. (See appendix A for approximate time limits.) A boy will think if you give

him something to think about; and he will talk and write freely, provided he has something to say. Expression follows acquisition. Hence, when a subject has been properly presented, and the pupil has, it is to be presumed, come into the possession of something valuable, he must GIVE BACK in his own words the thought evolved and the information gained,—with such original modification in the way of ideas, of course, as may be possible to him. *This active return use of the pupil's own English in daily composition is a* POSITIVE REQUIREMENT *that must be insisted upon from first to last.* It is the means taken to awaken interest and promote efficiency of drill in spelling, punctuation, capitalization, grammatical construction and the whole range of technical verbal expression. The blackboard must be in constant requisition for it, and set exercises assigned also for seat work.

This general statement regarding the position of writing (composition) in the Course of Study stands for all grades, and no further directions for it will be given in the pages that follow. Adequate training on the part of the teacher to obviate the necessity for such directions, is presupposed.

DRAWING.

Drawing is a form of language, and, next perhaps to talking, it is the most natural expression of the child. It enters largely into the work in nature study, history and literature, geography and arithmetic. It is a necessary factor of industrial training on the physical side and æsthetic culture on the human side. As a corrective of the spontaneous rough sketching which is so desirable in the various branches, and must have a place in the lower grades before the *grammar* of the subject can be taught, there is introduced a thread of technique which runs through the whole course. The larger term of *Art Instruction* would better describe the work of this department, including, as it does, the study of color as well as that of form and leading to an

appreciation of the beautiful not only in the natural world but in the great creative works of man. (See App. D 1 for suggestions concerning school room decorations.)

PENMANSHIP.

Require vertical writing. For directions see copy books of the D. C. Heath system.

CIVICS, MUSIC AND PHYSICAL TRAINING.

These subjects have an important place in the Course, but the outline of the work is not published herewith.

LIBRARIES, "CIRCULATING" AND "RETAINED."

Let the pupils of the lower grades take home the books of their grade contained in the circulating libraries, but not those contained in the retained libraries. Hold the latter in reserve to supplement at just the right time the observation work in nature study and the talks in history and literature. The good effect of these books is largely lost if the pupils are allowed to go over them beforehand. They may, however, be taken home for *review*, when they have once been read through at school.

NOTE.—It will be desirable sometimes not to adhere strictly to the division into bi-monthly periods. The accomplishment of the year's work within the year is all that is required.

First Grade.

Extension of the Kindergarten.

Even in the kindergarten a beginning is made in nature study, history and literature. This is accomplished by the direct examination of natural objects, by games, songs, poems and talks. The first grade teacher must build on the kindergarten, developing the language out of these content studies. The order is see, think, feel, and then express. Expression does *not* come first.

Health Lessons.

Name the principal parts of the body, head, neck, trunk, arms (right and left), hands and feet, what can be done with each. Compare with animals studied. Lessons teaching care of the body, cleanliness, proper position of the body while sitting, standing, walking and running.

Illustrative Work in Nature Study.

Encourage the child to express what he sees, but do not look or seek for finished drawings. In connection with the observations made and objects shown, *sketch* animals, plants and parts, snowflakes, moon in different phases, outlines of trees in winter; *model* fruits, seeds and animals; *picture* snowstorm, sunrise, sunset; *collect* and *mount*, as pineneedles and cones, seeds and buds. Keep a pictorial record of the weather with the children.

Penmanship.

There should be much blackboard writing throughout the

year, especially in the earlier part. Towards the end of the year, teachers may use ink, if desired.

TECHNICAL WORK IN LANGUAGE.

Teach (*a*) the use of the capital in beginning a sentence or a proper name and in writing the words I and O, (*b*) the use of the period and interrogation point, (*c*) the formation of the plural by adding *s* and (*d*) the abbreviations, *R. I.*, *St.*, *Ave.*, *Mr. and Mrs.*

COLOR.

Recognize and name six standard spectrum colors. Use them in arrangements (contrasted harmony).

September, October.

NATURE STUDY.

(*a*) Natural Phenomena.

Observe the kind of day, sunny, cloudy, the position of fog, clouds, rain, dew and frost.

(*b*) Plants.

Observe and name five or more of the common plants (trees included). Observe and name the parts, root, stem, leaf, flower, fruit, seed. Think out simple uses of each to the plant. Observe preparations being made for the winter.

(*c*) Animals.

Observe and name the common animals, as birds, insects, that are seen in going to and from school, discover what they can do, how they do it, their homes, covering and habits, what preparations are being made by them for the winter.

LITERATURE.

(*a*) Hiawatha.

Short selections learned. Scenes and stories adapted. (Song of the owlet.)

(*b*) **Nature Stories, Poems and Songs.**

TEACHING TO READ.

While giving your first blackboard lessons, make Hiawatha the centre of instruction and interest.

These sentences may be taught first (with objects):

I have a basket	I have a pine-cone
I have a bow	I have a feather
I have an arrow	I have a canoe
I have an arrow-head	I have a paddle

Later on these sentences may be taught (with blackboard pictures):

I see the moon	I see Hiawatha
I see a star	I see Nokomis
I see the tree	I see the tent
I see a cloud	I see the cradle

Later on connect more closely with nature study and make the nature basis more apparent.

NOTE.—For vocabulary building, the beauties and wonders of the physical world and the various situations and pictures, geographical and historical, suggested by mythical tales, poems and stories, should be drawn upon freely and unhesitatingly.

Follow what may be called the sentence-word-alphabet-phonic method. After each lesson assign some definite task in word-building or sentence-building for seat work. For these, each pupil has a tray of letters and a tray of words. (See App. B for list of words.) The blackboard work is script, and the seat work print. So the two are carried along together. By the end of the year, the pupil should be able to recognize 300 words and spell orally and write from memory two-thirds of them. This is a minimum requirement. Teachers are not bound, however, to confine themselves to the words in the printed list. In time, when we are able to make our own reading book, a better list will be prepared.

SPELLING.

For seat work, word-building; and for blackboard work copying and the reproduction of words of which mental pictures are caught from a brief exposure of copy.

DRAWING.

(a) Location.

Right, left, front, back, middle.

(b) Paper Folding.

Flags, boats, windmills. Show pictures of Holland's windmills. (See App. D 2.)

(c) Type Form and Variations.

Spherical objects and *Sphere.*

Model sphere.

Collect, model and draw spherical objects; e. g., fruits, seeds. (See App. D 3.) Begin cabinet collection.

Collect pictures containing spherical objects.

NOTE.—Time is allowed for many short color lessons and much illustrated sketching in connection with nature study and literature. Insist on right position of body, long crayon and pencil holding, and shoulder movement. Remove erasers before beginning blackboard work. Drawings on blackboard and paper should be of large size.

ARITHMETIC.

Through 4 without figures.

November, December.

NATURE STUDY.

(a) Natural Phenomena.

Observe the position of mists, ice, snow, snowflakes, of what made, their uses. Observe the position and beauty of the sunset and the sunset clouds, the moon and the evening star.

(b) Plants.

Observe the trees: are there any leaves upon them? any

buds? any fruit? Name the plants used for Thanksgiving and Christmas dinners, and tell what the part eaten is, as the sweet potato, a root; celery, a stem; lettuce, a leaf; cauliflower, a flower; squash, a fruit; walnut, a seed. Have others named. Short lessons on the evergreen trees—green needles, pitchy stems, woody cones. Select one for a Christmas tree and give reason for selecting it.

(c) **Animals.**

Observe and study animals used for Thanksgiving and Christmas dinners. Observe and talk about the winter birds, those that remain with us all the season, as the crow, chic-a-dee, etc.; those that visit us, as the snowy-owl, snow-bunting; learn where their homes are, upon what they subsist, how protected from the cold.

LITERATURE.

Hiawatha continued. Nature stories, poems and songs.

NOTE.—In connection with the literature and reading, pupils draw wigwam, bow and arrow, Indians, canoe, Hiawatha talking to the birds, the forest, the sun, moon, stars, the sphere, etc.

READING AND SPELLING.

Just when the pupil shall begin to read from Cyr's Primer, the Interstate or the Normal First Reader is left to the judgment of the teacher. By the holidays the pupil should be able to recognize 120 words and spell orally and write from memory two-thirds of them.

PHONICS.

Give a sentence saying one word slowly, as *I saw a m-a-n, I saw a b-oy, I saw a wh-i-te c-a-t.* Have pupils tell what you saw. Write lists of words upon the board for slow pronunciation by pupils. Teach sounds of consonants as well as sounds of vowels. At first, avoid more than one sound of vowels taught; short sound preferable.

DRAWING.

(*a*) **Type Forms; Parts; Variations.**

Cubical objects and *Cube.* Compare with sphere. Follow directions for sphere.

Cylindrical objects and *Cylinder.* Compare with sphere and cube. Follow directions for sphere. Show photographs—the big trees of California, Pisa's leaning tower, etc.

Review.

Surface,—curved and *plane.*

Faces,—curved and *plane;* number of.

Shapes of plane faces—*circle* and *square.*

(*b*) **Thanksgiving.**

Modeling, sketching, paper folding. (See App. D 4.)

(*c*) **Christmas.**

Madonna pictures and stores. (See App. D 5.)

Make simple articles based on types studied; as napkin rings, paper weights, pen wipers.

ARITHMETIC.

Through 6 without figures.

NOTE.—Teachers may carry addition and subtraction up to 3, 4, 5 or 6, and then go back for multiplication and division; or they may carry all four processes along together from the start.

January, February.

NATURE STUDY.

(*a*) **Natural Phenomena.**

Observe position of mists, fogs, clouds, ice and icicles; of what is each made? Observe sunrise and the clouds at sunrise; compare with sunset clouds.

(*b*) **Minerals.**

Short lessons given in recognizing minerals and rocks brought

in by the children, as granite, slate and quartz. Find distinguishing qualities, as color, kind of edges. Think of simple uses. How do minerals differ from plants and animals?

(c) **Plants.**

Learn the names of plants in the schoolroom; review their parts and simple uses to the plant. Observe the trees, their height, outline; are there any buds on them? Think what keeps them from freezing.

(d) **Animals.**

Encourage the children to bring their pets to school for study, as the cat, dog, rabbit and dove. Discover what they can do, how they do it, their covering and habits. Continue the observation of the winter birds.

LITERATURE.

(a) **Stories from Greek History and Mythology.**

(See "Classic Stories for Language Lessons," by Mara Pratt, and Hawthorne's "Tanglewood Tales" and "Wonder-book.")

(b) **Stories from the Iliad.**

(c) **Nature Stories, Poems and Songs.**

(d) **Fairy Stories.**

NOTE.—Select only those that have a lesson. Tell it so that the children can see it, but do not pick it out and dwell upon it. (See Scudder's Folk Stories, De Garmo's Fairy Tales, Hans Andersen's Fairy Tales.)

(e) **Fables.**

Choose only those that show the result of some quality; e. g., the fable of the dog and his shadow. Give when needed for a lesson.

(f) **A Few Stories.**

From "Seven Little Sisters" and "Children of the Cold."

NOTE.—It is entirely within the province of first grade teaching to adap these subjects to the children, but the teacher needs to read and prepare for the work to do it well. This is the whole of the literature for the last six months of the year (January to June). Draw in connection with it.

A child can often tell better by drawing than by talking what he is thinking about.

READING AND SPELLING.

In connection with the reading from books, keep up the blackboard lessons, seeking to relate the work with nature study, literature and drawing as closely as possible.

PHONICS.

In time pupils discover not only that words are made up of sounds but that some letters have more than one sound. In giving a new sound, select, as far as may be, some word beginning with that sound. Use it as a key-word. Keep a list of key-words on the board and drill the pupils on them. When a sound cannot be given, refer to the key-word. Drill on phonics from ten to fifteen minutes daily for the rest of the year, but connect the drill as much as possible with the reading.

DRAWING.*

(a) Type Forms; Parts; Relations.

Edges,—straight and *curved;* number of. Position of faces and edges,—*horizontal, vertical, oblique.*

Corner,—upper left and *back left*; *upper right* and *back right: lower left* and *front left; lower right* and *front right.*

(b) Appearance and Arrangements.

Line,—picture of an edge.

Lines on board and paper (individual instruction).

Application of lines in making snow flakes, trees, houses, fences, and in illustrating stories. (See App. D 7.)

Stick-laying to represent lines varying in length and direction.

Stick laying to form borders (repetition, alternation). Draw same on board or paper. (See App. D 8.)

(c) Type Form; Bisection and Details.

Model sphere and *bisect* to form *Hemisphere.* Follow directions for sphere.

*See App. D 6 for correlation of art with nature study.

Story of "Giotto's O."

Cut circle and draw same on board and paper (individual instruction). Distinguish between circle and sphere.

(*d*) St. Valentine's Day.

Make valentine and envelope.

(*e*) Washington's Birthday.

Hang copy of Washington's portrait (Stuart's).

Make soldier hat and school flag. Use during marching exercise.

Pupils draw child in marching costume.

ARITHMETIC.

Through 6 with figures. Begin table building with the printed "table builders." Carry the four processes along together. Study Appendix F.

March, April.

NATURE STUDY.

(*a*) Natural Phenomena.

Observe the winds, direction blowing, and effects.

(*b*) Plants.

Observe the trees. Have a variety of twigs with buds brought into the school room and kept in water. Observe the unfolding of the buds. Observe buds out of doors. Watch for the return of the little plants, as the grasses; lead the children to see how they have been protected through the winter from the cold and storms, that they might come back for us to enjoy. Begin germination of the bean, pea and other seeds. Help the children to realize that plants are alive, that each part has something to do to sustain the life, that what it does determines its form and structure.

(*c*) **Animals.**

Observe the return of the birds,—learn to know five by sight, and some of their habits.

READING AND SPELLING.

Keep up the blackboard lessons. These bear much the same relation to the reading and spelling that the number lessons, with the children gathered about the number table, bear to the arithmetic. After giving a blackboard lesson it is well sometimes to wait a few days before reading upon the same subject. Do not make the getting ready to use a book too obvious to the child.

PHONICS.

Many words have the same ending, as *old, cold, fold, hold, told; get, let, met, set, wet.* Teach these words as belonging to the same family. Let the children think of as many as they can, or, taking out their tray of words, let them place the families in rows, long *o* family, short *e* family, etc. Send them to the board to write sounds as given, or, taking out their tray of letters, let them spell words having particular sounds, as three words with short *o*, two with long *a*, one with hard *g*, *etc.* Various devices will suggest themselves.

DRAWING.

(*a*) **Appearance.**

Draw pictures of circular objects, as fan, pen-wiper.

Draw buds and parts of plants observed in connection with work in germination.

(*b*) **Type Forms; Bisections and Details.**

Model cylinder, and bisect to form *Half Cylinder.* Follow directions for sphere.

Observe shapes of plane faces, *semi-circle* and *oblong.*

NOTE.—Make kite from oblong. Use in connection with observation of the winds.

Cut circle and bisect to form semi-circle. Draw.

Model cube, and bisect diagonally to form *Triangular Prism*. Follow directions for sphere.

Observe shapes of plane faces,—*triangle* and oblong.

Fold and cut squares, and bisect to form oblong and triangle. Sew and draw.

NOTE.—These lessons may represent the designing of flower beds ready for seed planting. Show photographs, as "The Sower," by Millet.

(c) Easter.

Make offering based on some geometric form studied.

(d) Arbor Day.

Fold, cut, sew and draw a square. This may represent a park or yard in which trees are to be set out.

Foldings of shovel, hoe or rake.

ARITHMETIC.

Through 8. The work in arithmetic involves many difficulties in getting started, and the teacher should not be discouraged even yet, if the foundations do not seem to be well laid. With bright pupils, however, it should be comparatively easy at this time to take up a new number.

May, June.

NATURE STUDY.

(a) Natural Phenomena.

Observe the rain clouds, the rain, the rainbow. Observe the effect of rain on the vegetation, the little streams that are formed in and by the streets, the direction in which they flow, the material carried along by them. Make collections showing the finest and some of the coarsest material.

(b) Plants.

Continue the observation of the growth of germinating plant-

life. Watch the flowers, as the cherry and strawberry changing to fruit with seeds in them. Review the story of plant from seed to seed.

(c) **Animals.**

Continue the observations of the five birds. What are they doing these months? Observe the bees and flies that visit the flowers: watch them at their work—what they do and how they do it.

READING AND SPELLING.

Keep up the blackboard lessons. The pupil is now able to give back to you in writing more than ever before. As he improves in reading, let him take home books to read to parents, but not those containing lessons you wish to give first in the school-room as a sequence to the blackboard lessons. Read the easy parts of as many first readers as you can, but grade the reading carefully. Do not hurry the pupil into lessons that are too hard for him. Keep him practically unconscious of difficulties.

PHONICS.

Introduce as far as possible the personal and play elements into the work—guessing, "games," variety. With what did Hiawatha eat the supper that old Nokomis cooked for him? What did Hiawatha see rising above the dark forest? What did he hear making a wild cry far out on the lake? What could Hiawatha do with his bow and arrow? What part of the plant did he see when he pulled up the corn-stalk? In this way get the words *spoon*, *moon*, *loon*, *shoot*, *root* and perhaps other words belonging to the same family, as *stool*, *spool*, *school*, *fool*, *cool*, *etc.* See M. Mitchell's "Hints on Teaching Reading." Use diacritical marks about as in first readers.

DRAWING.

(a) **Type Form; Quadrisection and Details.**

Model cube, and *quadrisect* to form *Square Prisms*. Follow

directions for sphere. Show photographs, as Giotto's Tower and the Campanile of St. Mark's.

(*b*) **Appearance and Arrangements.**

Sketch in connection with work in germination.

Model and sketch flowers, leaves and fruits. (See App. D 9.) Show pictures of famous gardens.

Copy simple historical borders. Cut and paste border (repetition, alternation).

ARITHMETIC.

Through 9 and review.

Second Grade.

UNITY OF WORK.

The following are suggestions for securing unity in the work, through seeing in nature study, hearing in history and literature, and telling (giving back) in all the studies.

Let us suppose that the subject in nature study is *The Skin*.

Before school begins in the morning the hand glass may be passed so that the children may see how coarse and strange their skin looks under it. An appropriate story about a child who cares for his body, may be told also. (It is always well to have at this time something very interesting to promote punctuality.)

The Bible reading may turn upon cleanliness without or purity within.

NOTE.—A single verse of related Bible reading to which the children pay attention is worth more to them than a whole chapter of unrelated Bible reading to which they pay no attention.

As in the Kindergarten, unity of work *in variety* is essential. The morning talk gives the key-note of the day. The basis of the exercises is observation, awakening thought and giving free play to expression. The teacher talks only enough to draw the children out. They sketch, write, spell. Perhaps they know a motion song about the body, its tiny nerves and covering. If so, they sing it. In the course of the talk, the teacher pauses to inspect the hands to see if they are clean. She tells them that ladies and gentlemen like to be clean, and that they think of their appear-

ance as well as their conduct. Incidentally lessons in manners and morals are taught. Ladies and gentlemen are polite, kind.

Throughout the day the connecting thread of interest is followed. The central thought is never lost sight of. Perhaps the night before, the teacher put on the board, "Cleanliness is next to Godliness," and marked for phonic drill. The children get it for themselves. The words for spelling troop along in companies, *face*, *hands*, *skin*, *water*, *clean*, *pours*, *pores*, *perspiration*. The number lesson is varied by the introduction of a problem or two about clean hands: In my B Division are three rows of children with clean hands, six children in a row; how many children in all? The gymnastic exercise is varied by rubbing the hands to make them dry so that Jack Frost will not chap them. Geography is introduced by a word about the Greek athletes who swam in the sea to get strong and keep clean. This prepares the way for Greek history and literature which may be drawn upon for the next morning talk. Perhaps the children will suggest this to you.

NOTE.—It is always easy to pass from nature to human nature.

READING.

Read in groups. Use First Readers mainly. One thousand pages during the year will not perhaps be found too many, but no absolute limits are assigned. Read all you can. Get the thought, look off and tell it. Better expression is obtained in this way. There comes a time, however, towards the end of the year when, owing to the increased length of the sentences, this verbatim memorizing and telling delays the reading too much. It is better then to get the thought with the reading, more as adults do. Grade the reading carefully. As books become too hard, lay them aside and take the easy parts of others.

Develop the meaning of all new words. Write on blackboard, cover quickly, spell. Use in original sentences. Do not as a rule give out books to be retained and read at seats. Make the reading an exercise that all enjoy. Put life into it. Send some to the board to write and perhaps illustrate sentences. Correct them at close of exercise. Reading, spelling, penmanship, phonic drill and the giving back in thought by such means of expression as may be most convenient and effective—all these must go together. In connection with phonic drill, the different sounds of the vowels may be used as a scale and sung.

Teach alphabet, vowels, consonants and when *w* and *y* are consonants. Devote from five to ten minutes daily to phonics. Make the work interesting and fundamental. See Pollard's Manual for suggestions.

NOTE.—Certain books correlate with nature study, history and literature. These belong chiefly to the Retained Library and are not to be read through in order but held back to supplement the observation work of the child and the talks (adaptations of the classics) of the teacher. Certain other books correlate with the child's own civilization, and are not especially adapted to lift him out of that civilization. They are written in the colloquial style, and serve for purposes of word recognition. These belong to the Circulating Library and comprise the ordinary readers, which may be read without any special reference to previous instruction other than the presentation of the new words in the blackboard exercise with which every reading lesson is introduced. It sometimes happens, however, that particular pieces contained in the latter rise above the level of the others, and require the same treatment as the former. (See "Libraries," page 11.)

SPELLING.

Write and review orally words previously recognized by phonics. New lists should, so far as practicable, be introduced when needed in other work: thus, when the first snow storm comes, and the word "snow" is needed, words containing *ow* may be taught, as *snow, blow, glow, crow, flow, etc.* But spelling lists have a greater significance when derived directly from the *natural* centres of instruction.

Each word then has its train of associations. *Catkins* suggests *brook*, *meadow*, *water*, *bridge*, *stroll*, *spring*, *grow*, according to the circumstances of the lesson or the nature of the experience out of which the spelling is taken. Fill up the odd moments (as during the passing and collecting of books, the distribution of drawing and other material) with spelling, singing, memory gems, the multiplication table, *etc.*; and be fertile in devices for enhancing interest. Little nature stories (original) may be spelled orally by the children for the others to get by close attention. By the end of the year the pupil should be able to spell orally or in writing 500 words. Keep list of words learned. Each teacher will have a somewhat different list. Review daily. Drill especially on words frequently mispelled, as *there*, *their*, *which*, *whose*, *etc.* Dictate these in sentences.

NOTE.—Children may be furnished small blank books for diaries and dictionaries, the former to contain observations made in coming to or from school, or at other times, and the latter, the words taught; or the two may be combined in one.

PENMANSHIP.

Movement exercises may include slides, ovals and loops (for capital stem). These may be taken first with hand, second with pen dry, and third with ink. Insist upon neatness as much as in actual writing. Pen must be held lightly and the least possible weight thrown upon the right arm and hand. For drill in the forms of letters, observe a prescribed order or, for the sake of unity, select, if preferred, those contained in *skin*, *cool*, *Hiawatha*, *buttercup* or such other word as may be prominent in the morning talk, the number or other work. Cultivate speed as well as correctness.

TECHNICAL WORK IN LANGUAGE.

Teach the use of (*a*) capitals in headings and lines of poetry, and (*b*) comma in a series of words and case of address.

Introduce apostrophe and exclamation point. Teach contractions and abbreviations occurring most frequently in readers. Write name, address and date. Teach a very simple form of letter.

COLOR.

Review six standard spectrum colors. Teach *hues* of red, orange and yellow. Use twelve spectrum colors in arrangements (contrasted harmony).

September, October.

NATURE STUDY.

(*a*) Natural Phenomena.

Observe clouds, fog, rain, dew, where each is found, time of greatest abundance of each. Describe shapes of clouds. Observe the position and movement of the sun during the day; the position of the Great Bear or Great Dipper, and the North or Pole Star. Pictorial weather chart continued throughout the year.

(*b*) Plants.

Collect, and learn the names of seven to twelve of the common fall flowering plants that grow in Pawtucket. Observe where they grow, and the kind of soil in which they grow. Learn the position, color, form, and size of their parts, and think out simple uses to the plant, to man, and adaptations of each to its uses. Sketch, press, and mount three or more. Also learn the names of seven or more of the common trees. Observe the new buds already formed, the color of the autumn leaves, and their time of falling off. Think of the leaves as ripening, their use after falling. Learn by observation how seeds are distributed. Sketch, press, and mount three or more of the leaves, showing position on the twig.

(c) **Animals.**

In connection with plant work observe grasshopper, cricket, and other insects which live among them—their covering and movements; sketch one or more of them. Observe preparations being made by animals for the winter; compare them with those being made by people.

(d) **Health Lessons.**

Position of principal parts of the body, review from first year. Interest the children to have their height and weight taken each month for comparison; thus lead them to watch their own growth. Think if growth of character keeps pace with development of body.

LITERATURE.*

(a) **Stories from Hiawatha.**

Making the canoe.

Shooting the deer.

Wrestling with Mondamin. (Story completed in spring.)

Hiawatha's friends.

Visit to the arrow-maker.

(b) **History Stories.**

Story of Columbus.

Discovery of America.

Illustrate.

(c) **Nature Stories, Myths, Poems and Songs.**

DRAWING.

(a) **Appearance.**

Draw lines on board and paper. Collect and group leaves and flowers according to geometric figures previously

* See note under Literature for same months in third grade.

studied. Model and draw a simple leaf. Draw a simple twig with leaves and buds.

NOTE.—Insist on right position of body and correct pencil holding. Remove erasers before beginning blackboard work. Drawings on blackboard and paper should be of large size.

(*b*) **Type Forms and Variations.**

Short reviews of sphere, cube and cylinder; their divisions and details. Lead children to see correctly through much sketching of objects. Test power by memory sketches. Continue this work throughout the year.

SPHEROIDS.

Compare with sphere. Model sphere and spheroids. Collect, model and draw objects like sphere and spheroids; e. g., fruits, seeds. Begin cabinet collection. Collect pictures of spheroidal objects.

OVOID.

Compare with spheroids. Follow directions for spheroids. Discover this form in buds, fruits, seeds, bodies of insects and birds, heads of animals and men.

NOTE.—Time is allowed for many short color lessons. Directions for teaching color will be given at teachers' meetings.

ARITHMETIC.

Through 10, reviewing first grade. Teach objectively to read and write numbers to 100. For this purpose use toothpicks and elastics, binding ten units to make one ten. (See App. F.)

November, December.

NATURE STUDY.

(*a*) **Natural Phenomena.**

Observe mists and frosts, their color, time of occurrence and greatest abundance, where found, of what each is made;

cause of frost coming and going; effects on vegetation; observe sun shadows; changes of the moon; sketch the different phases.

(*b*) **Plants.**

Study fruits—as the apple—as the home for the little seeds; learn how the seeds are nourished, from what protected, how sheltered and distributed. Model and sketch the whole apple, the cross and vertical sections. Learn the names of three or more of the evergreen trees; compare their leaves or needles, pitchy stems and woody cones. Locate any evergreen tree in the district. Sketch and mount twigs.

(*c*) **Animals.**

Name any birds or insects seen out of doors these months. Note if they continue with us through the winter. Are any found among the evergreen trees? Why choose these trees for their home? Study the habits and covering of a living bird; observe especially the characteristics that belong to all birds. Model and sketch.

(*d*) **Health Lessons.**

Describe the movement and uses of the principal parts of the body. Teach care of these parts, and adaptation of each to its uses. Teach right uses. How may kindness be shown by hands and feet; hands that are willing to do, and feet that are willing to go on errands of love. Compare parts of the body with those of the animals studied; compare also the uses of the parts.

LITERATURE.

(*a*) **Hiawatha Continued.**

(*b*) **The Indians in Massachusetts.**

(*c*) **Stories of the Pilgrims.**

Their coming to Massachusetts.

The first Thanksgiving.

Poems and songs.

Illustrate.

(*d*) **Christmas Stories, Legends, Poems and Songs.**

Eugene Field's "First Christmas Tree."

Stories of the Christ child.

Illustrate.

Show pictures.

(*e*) **Nature Stories, Myths, Poems and Songs.**

DRAWING.

(*a*) **Type Forms; Bisection and Details.**

Bisect spheroids and ovoids. Observe shapes of plane faces,—*circle, ellipse and oval.*

Cut and draw an ellipse and oval. Distinguish between terms ellipsoid and ellipse; ovoid and oval.

Cone. Compare with cylinder. Teach *base* and *apex.* Follow directions for spheroids. Observe which trees are shaped like a cone.

Square Pyramid. Compare with square prism and cone. Follow directions for spheroids. Show photographs of Egyptian pyramids.

(*b*) **Thanksgiving.**

Modeling and sketching. (See App. D 4.)

(*c*) **Christmas.**

Madonna pictures and stories. (See App. D 5.)

Make simple articles based on types studied, as pin-card, needle-book.

(*d*) **Historic Ornament.**

Cut and paste border of triangles to form Egyptian zigzag (repetition or alternation).

ARITHMETIC.

Through 12 with table-building, problems, picturing, etc. (See App. F.)

Confining operations to numbers expressed by two figures, teach written addition, subtraction, multiplication and division, without carrying or taking, as follows:

(*a*) **Addition.**

32+ 43 — "Mary may be 32, Jennie 43, and Hattie may add." Mary holds up three tens in her right hand and two units in her left hand, while Jennie being a larger girl and standing behind Mary, reaches forward so that her tens and units are directly over Mary's. Hattie collects the units and writes 5, collects the tens and writes 7.

(*b*) **Subtraction.**

46— 15 — "John may be the tens in 46, James the units, and Willie may take away 15." John and James stand side by side, the former holding four tens in his right hand and the latter six units in his left hand. Willie takes five units from James and writes 1 in the proper place. Then he takes one ten from John and writes 3 in the proper place.

(*c*) **Multiplication.**

4x 12 — "Nellie may be one 12, Susie another, Rena another and Blanche another. Lizzie may add." Each of the first four girls holds up one ten in her right hand and two units in her left hand. Lizzie collects the units and writes 8, collects the tens and writes 4. (The *place* of the multiplier should make no difference in multiplying.)

(*d*) **Division.**

3 | 36 / 12 — Do not undertake to explain this. Simply teach the process.

January, February.

NATURE STUDY.

(*a*) **Natural Phenomena.**

Observe snow, snow crystals, ice, icicles, where each is found, of what made, time of occurrence and greatest abundance. Watch ice and icicles forming. Make salt or

alum crystal; observe formation. Watch ice and snow thawing. Observe evening star, its position, size (comparative) and color. Sketch snow crystals.

(*b*) **Minerals.**

Review the mineral work of the first year. Continue collecting and making observations of minerals. Add for study coal and rock salt.

(*c*) **Plants.**

Study and sketch the plants in the schoolroom. Observe the height, outline and buds of the trees studied the preceding months. Sketch the outline of some of them.

(*d*) **Animals.**

Study the cow and the horse, their covering, parts, habits, and uses to man. Model and sketch. Make a collection to illustrate the different uses of the cow to man.

(*e*) **Health Lessons.**

Name and locate parts of the head and face, emphasize care of each, show adaptation to use. Teach right uses. The kind of eyes to see when to help another, the lips that say "no" when tempted to do a wrong deed.

LITERATURE.

(*a*) **Stories from Famous Pictures.**

Landseer's Dog.

The Two Princes in the Tower. (*Millais.*)

Story of Giotto and his Bell-tower.

Let children look at pictures and learn to love them and try to copy them if they wish.

(*b*) **History Stories.**

Washington.

Lincoln.

The negro.

The flag.

Patriotic poems and songs.

Illustrate.

(*c*) **Longfellow.**

Story of his life.

Poems read, reproduced and illustrated. Selections learned.

(*d*) **Eskimos.**

Stories from "Seven Little Sisters," "Children of the Cold."

Let a child dress and pose as an Eskimo. Children draw.

(*e*) **Nature Stories, Myths, Poems and Songs.**

DRAWING.*

(*a*) **Type Forms; Parts and Developments.**

Triangular Prisms. Compare. Follow directions for spheroids.

Triangles named from sides—*scalene*, *isosceles* and *equilateral.* Cut and draw isosceles and equilateral triangles.

Teach *angles—right*, *acute* and *obtuse*, from triangles.

Square Prism. Compare with triangular prisms. Develop, cut, sew, draw and paste pattern of square prism.

(*b*) **St. Valentine's Day.**

Make valentine and envelope.

(*c*) **Washington's Birthday.**

Copy of Washington's portrait (Stuart's).

Make soldier hat and school flag. Use during marching exercise.

Pupils draw child in marching costume.

ARITHMETIC.

Through 15 with table-building, problems, picturing, *etc.* (See App. F.)

* See App. D 6 for correlation of Art with nature study and literature.

Confining operations to numbers expressed by two figures and avoiding all *partial* sums and minuends larger than 15, teach written addition and subtraction, with carrying and taking, as follows:

(*a*) **Addition.**

25+ 48 — "Mary may be 25, Jennie 48, and Hattie may add." Hattie collects the units held up by the other girls and finds she has 13. This is three more than 10. She writes the three units in the proper place, and adds the 1 ten with the other tens, after binding it. This gives her 7 tens, which she writes.

(*b*) **Subtraction.**

65— 17 — "John may be the tens in 65, James the units, and Willie may take away 17." John and James are partners. Willie says to James, "Give me 7 units." James, having but 5 units, turns to his partner John and says to him, "Give me one of your tens." Receiving this, he unbinds it, and puts the units together, making 15 units. Out of them he counts 7 and gives them to Willie, having 8 left. Willie writes 8 in the proper place. Willie now says to John, "Give me 1 ten." John gives Willie 1 ten and has 4 tens left. Willie writes 4 in the proper place.

Have written problems with class at board to suit the above.

March, April.

NATURE STUDY.

(*a*) **Natural Phenomena.**

Talks on the wind, what it brings, what it does, its direction, names, uses. The weather vane and its uses. Teach terms relating to winds, as gale, breeze, light breeze, calm. Picture a windy day. Observe the change of seasons; the effect of thawing on the soil; the preparations being made for spring; think why the farmers plow.

(*b*) **Plants.**

Continue to observe the buds on the trees studied in autumn; have a few brought into the schoolroom; keep in water; watch carefully their growth. What is hidden away in them? how do they unfold? do all unfold in the same way? which open first, those indoors or out? Think what is necessary for buds to open. Call attention to the catkins of the willows, alders and other trees. Sketch a few

of the buds studied. Watch for the return of the earliest plants and flowers. Begin the Natural History Calendar. Study the germination of the bean and morning glory seeds, and observe their growth throughout the term. Model and sketch different stages of the bean and morning glory. Germinate a variety of other seeds for comparison.

(c) Animals.

In connection with the plant study observe the return of the animals; learn to know a few by sight, and some of their habits. Keep record of their arrival.

(d) Health Lessons.

Learn to know and locate parts of neck, trunks, arms, legs. Observe rate of growth; compare it with that in other months. Think of other things that are growing rapidly. Short lessons on eating and drinking. Name the best kinds of food and drink for children.

LITERATURE.

(a) Stories from Greek Mythology.

Proserpine.

The Golden Fleece.

Psyche.

(b) Longfellow.

Story of his life continued.

Lessons from "Birds of Killingworth," "The Bell of Atri."

(c) Nature Stories, Myths, Poems and Songs.

DRAWING.*

(a) Trisection; Development.

Teach *trisection.*

Fold, cut and draw a kite unit. Make a large-sized kite, and use in connection with observation of the winds.

* See App. D 10, for correlation of Art with literature.

Talks on crosses. Fold, cut, sew and draw the Greek cross.

Cut, sew, draw and paste the pattern of cube.

(*b*) **Appearance.**

Draw buds, and parts of plants observed in connection with work in germination. Show photographs, as "Ploughing" by Bonheur, "The Sower" by Millet.

(*c*) **Easter.**

Cut, sew and draw the Latin cross.

Make Easter offering.

(*d*) **Arbor Day.**

Fold and draw a square with *diagonals*. The square may represent a park; the diagonals the walks. Drive stakes along the walks to indicate where trees are to be set out, (a review of bisection, trisection and quadrisection).

ARITHMETIC.

Through 18 with table-building, problems, picturing, *etc.* (See App. F.)

Confining operations to numbers expressed by two figures and avoiding all *partial* products and dividends larger than 18, teach written multiplication and division, as follows:

(*a*) **Multiplication.**

5X
13
—

As there are five 13's to be united, five pupils besides the one at the board will be required to illustrate this. It is well to let the pupil who performs the multiplication say the table as he collects the units: Once 3 is 3, 2 times 3 is 6, 3 times 3 is 9, 4 times 3 is 12, 5 times 3 is 15. [See previous explanation.]

(*b*) **Division.**

4 | 52
—
13

Attempt no explanation. Simply teach the process.

Have written problems with class at board to suit the above

May, June.

NATURE STUDY.

(*a*) Natural Phenomena.

Where and when do you find dew? Is it more or less abundant than in autumn? Describe, sketch shapes and name colors of clouds seen at sunset; at time of showers. When are the prettiest ones seen? Observe the rain and rainbow. Picture a shower and rainbow. Compare the winds of this month with those in the preceding ones; do they come from the same directions? blow as hard? *etc.*

(*b*) Plants.

Continue the observation of the opening of the buds; find catkins of the oak and other trees, the blossoms and fruit of the maples, the morning-glory and bean (in the schoolroom). Learn to know ten or more of the common spring flowering plants found in Pawtucket. Try to find a reason for the colors and markings of flowers. Observe the work of wind and insect in distributing pollen. Watch the flowers changing to fruit, as the apple and buttercup, and thus learn that the flowers have their work to do. Sketch, press, and mount five or more of the plants studied.

(*c*) Animals.

Continue the work on the animals observed in March and April. Describe their shape, size, covering and food of three or more new birds; of what and where does each bird build its nest? Think whether useful to man.

(*d*) Health Lessons.

Short lessons on breathing and sleeping with reference to hygiene and right habits. Talks on ventilation; why we need fresh air. How can we get it at night? Seek to lead the pupils to realize how much their surroundings have to do with their health and character.

LITERATURE.

(*a*) **Stories from Greek Mythology.**

Penelope's Web.

Arachne.

Baucis and Philemon.

(*b*) **History Stories.**

Memorial Day. (May.)

Stories and poems and songs.

Stories of the Revolution. (In connection with Bunker Hill, June 17.)

(*c*) **Nature Stories, Myths, Poems and Songs.**

DRAWING.

(*a*) **Geometric Figures; Details.**

Fold and draw a square, oblong, ellipse, oval, and circle with *diameters*. Show pictures of famous gardens.

(*b*) **Appearance.**

Sketch in connection with work in germination.

Model and sketch flowers, leaves and fruits.

(*c*) **Ornament.**

Make Greek border.

Copy a simple surface design.

Use top view of flower in making a surface decoration.

ARITHMETIC.

Through 20 with table-building, problems, picturing, *etc.* (See App. F.)

Confining operations to numbers expressed by two figures, and avoiding all *partial* sums, minuends, products and dividends larger than 20, teach written addition, subtraction, multiplication and division, as illustrated in preceding months; and, with class at board, have practical problems, the solution of which involves such operations.

Third Grade.

Unity of Work.

See Second Grade for suggestions. Each grade has its own requirements. The third grade is the last of the primary grades. Oral instruction is still the rule. The reading book is the principal source of information outside the teacher, who, standing in the closest relations to the child, must draw upon all the resources at her command to embellish and unify the work. A daily contribution in thought and labor out of school is necessary to plan and group the work properly and make each session stand out a tangible, completed thing with pleasant memories. Skill in presenting subjects from nature, in story-telling and sketching, sympathy with out-door life and the literary instinct—all are demanded. Though maturing, the child has not yet learned to rely much upon himself or the text-book, but still clings to the teacher and looks up to her for guidance.

Do not correlate simply for the sake of correlating, but have a central thought and build around it in a practical way with things that it will be useful for the child to know and remember.

Reading and Spelling.

Read in groups. Use Second Readers mainly. One thousand pages during the year will not perhaps be found too many,

but no absolute limits are assigned. Read all you can without giving to reading an undue prominence. *Suit the reading to the work and grade it carefully.* Insist upon good expression. During the reading lesson, frequently call for the reproduction (in the pupil's own words), oral and on the blackboard, of what has been read. Accompany the reproduction with sketching when that will aid the thought. At the close of the lessson, correct this blackboard work and, the piece being a unit (connected story or description), call for its reproduction entire.

Continue, as in previous grades, to develop the meaning of all new words. Use for spelling, phonic drill and original sentences, and subsequently list for review in spelling. Note the words most frequently misspelled in the blackboard and other written language work and drill on these. Break off in the morning talk or at any other time to spell or define a new word, and make use of odd moments to fix in memory the forms of old ones. Supposing you have a list of several hundred words, including those taught by previous teachers, which it is always well to secure, let the pupils arrange the A's alphabetically, the B's, C's, etc. The spelling should grow out of the other work to the end that each word may have as many associations as possible in *fact*, *i. e.*, logical connection with the subjects taught—geography, nature study, number, form, etc. Then a further interest may be added in the personal history of the pupil—Mary had trouble with this word, John missed that one, and so on. While a faithful drill is indispensable and ingenious devices must be introduced continually to relieve and enliven it, the general teaching should be so purposeful and intelligent that this incident of spelling will not be so much of a drudgery after all. By the end of the year the pupil should grow up into a knowledge of the forms (spelling) of several hundred more words, their sound elements, and the ability to use them in original sentences.

A persistent phonic drill must be maintained throughout the

year. Devote from five to ten minutes daily to reviewing and extending the work of the previous grades.

PENMANSHIP.

No further outlines for the work under this head will be put in the Course, but specific directions will be given from time to time by the supervisor.

TECHNICAL WORK IN LANGUAGE.

Teach (a) the use of capitals, the comma, period, interrogation point and exclamation point as indicated in previous grades, (b) contractions and abbreviations occurring most frequently in the readers and ordinary correspondence, (c) the use of quotation marks in unbroken quotations, with comma following, as "*I am going home*," *said Mary*, (d) the use of the hyphen in dividing a word at the end of a line, and (e) the formation of plurals and possessive singulars. Give dictation exercises applying the foregoing principles. Extend the work in letter writing, Teach how to begin and end a letter, and how to direct the envelope. Look out for the misuse of words, especially *is* for *are*, *was* for *were*, *done* for *did*, *seen* for *saw*, *don't* for *doesn't*, *them* for *those*, *me* for *I*, etc. Avoid *ain't* and *hain't*.

NOTE.—Teachers of the lower grades can hardly escape teaching *to some extent* the use of the apostrophe, quotation marks and other signs, the formation of plurals and possessives, the agreement of verbs, etc., *sooner* than is laid down in these pages. They must determine for themselves when to begin to do certain things—*paragraphing* for instance, and must use their own judgment all the way along.

NATURAL PHENOMENA.

Pictorial weather chart on the blackboard. Observe sunrise, sunset, moon's phases, temperature at 8.30 A. M., sky, evening star. Learn to know the following constellations: Ursa Major, Ursa Minor, (North Star), Orion and Pleiades.

[The rest of the course in nature study is prepared by Miss Julia M. Talbot, Supervisor of Nature Study and Penmanship, succeeding Miss Annetta F. Armes, Supervisor of Nature Study, resigned to accept another position.]

COLOR.

Recognize and name the spectrum standards and twelve spectrum hues. Arrangements to illustrate contrasted harmony.

ARITHMETIC.

By the end of the year the multiplication table should be at the tongue's end. If, in saying it, anyone makes a mistake, as in giving the product of 6×7, require him to correct it by addition, as in margin on left; and if he makes a mistake in the addition, require him to correct it by an illustration, as in margin on the right. Omit the 11's and 12's. Count by 3's from 3, by 4's from 4, etc., to name all the products of the multiplication table up to 100. Add columns of figures—sums of columns to be less than 40 and the number of figures in a column not to exceed five. Much drill in the solu-tion of problems will be necessary. Assign several oral and several written problems daily. Do not classify them, but force continual discrimination. Pupils should know *how* to add, subtract, multiply and divide (short division) with rapidity and accuracy, and in any plain one-step problem or reduction should never be in doubt *what process* to employ.

7		oooooo	7
7		oooooo	14
7		oooooo	21
7		oooooo	28
7		oooooo	35
7		oooooo	42
—			6×7=42
42			
6×7=42			

(See appendix F for methods and forms of work and assignments in fractions and compound numbers for first, second and third grades.)

September, October.

GEOGRAPHY.

Bodies of Land.

Island, continent, peninsula, isthmus, cape, promontory, beach, hill, mountain, ridge, range, slope, plain, valley, volcano.

Much observation of nature forms near and much work at sand table.

NATURE STUDY.

(*a*) **Plants.**

Watch formations of buds upon the trees. Collect various kinds of seeds. Observe their shapes and arrangements. Preserve some for germination in the spring. Collect fall flowers. Press and mount stem, leaf, flower (root and fruit when possible) of each for class herbarium. Special study of the apple.

(*b*) **Animal Life.**

Observe the preparations of the caterpillar for the winter. Talks on shapes, locations, etc. of the cocoons. A few might be collected and kept in a sunny place for future observations. Connect with silk manufactures of Pawtucket.

(*c*) **Health Lessons.**

The skin. Outer and inner skin. Use of skin. Where thickest? Why? Examine tops of fingers with magnifying glass. Discover pores. Use. How may we keep these little drainpipes in order? Lessons on bathing, exercise, etc.

LITERATURE.

(*a*) Stories and Myths.

Dryope.

The Three Golden Apples.

William Tell.

The Gentian. (Fringed and closed.)

Midas.

(*b*) Fables.

Husbandman and Stork. (Bad company.)

Hawk and Pigeon. (Helpfulness.)

Boy and Wolf. (Falsity.)

Dog and Shadow. (Greediness.)

Hercules and Cart Driver. (Self-helpfulness.)

Lion and Mouse. (Gratitude.)

NOTE.—For convenience in classification, several of the stories and poems included in the course in literature for the year, are assigned *out of place*. Take them when they will come in best with the other work. The fables also are for reproduction when occasion calls for them.

DRAWING.

Appearance.

Model and draw leaves and simple sprays of leaves.

Appearance of sphere, spheroids and ovoid. Teach *table line.*

Model and draw fruits based on these forms,—as apple, tomato, pear.

NOTE.—Throughout the year, time is allowed for much color teaching, directions for which will be given at grade meetings. Encourage *time sketches* and *memory drawings*. Begin each lesson with drill in pencil holding and line practice.

ARITHMETIC.

Through 25 with written work in all four processes, not involving, of course, any *partial* sum, minuend, product or dividend larger than 25. Notation and numeration not extended.

Pupils on entering Third Grade should be able, at sight or mention of two numbers neither of which is greater than nine, to tell their sum instantly. Have a border upon upper part of blackboard for drill, thus:

4	6	9	8	2	3	5	9	3	etc.
7	8	4	7	8	4	7	6	5	

After they are able to read these sums right off, add a ten to each of the numbers in the upper line, thus:

14	16	19	18	12	13	15	19	13	etc.
7	8	4	7	8	4	7	6	5	

Drill on these combinations to show that the units' figure of the sum is unaffected by the tens. Further on, change the 1 ten to 2 tens, 3 tens, etc. Continue this drill throughout the year as a preparation for the addition of ledger columns.

November, December.

GEOGRAPHY.

Bodies of Water.
Ocean, bay, gulf, harbor, strait.
Lake (salt and fresh).
Why ocean is salt.
Tides.

Animals. (Of romantic and general interest in connection with race studies.)
Buffalo, turkey.

Indian.
Appearance, home, houses, utensils, food, means of livelihood, sports, character, present home.

NATURE STUDY.

(*a*) **Plants.**

Fruit and Seed. The great purpose of the seed is the *reproduction* of its kind by the plant. The other parts of the fruit exist merely for the protection, nourishment, attraction, distribution or other service to the seed. By comparison of many forms of fruits form a generalized idea of the term *fruit*. Make list of fruits good to eat; another of those not good for food. Do any plants have seeds which constitute the entire fruit? Make list of seeds that are good for food, another of those not good for food. Make list of fruits of which we eat the accessory parts and not the seeds; list of fruits of which we eat the seed and not the accessory. Why do most fruits become bright-colored when ripening? Do they invite animals to eat them?

(*b*) **Animal Life.**

Adapt to geographical outline and, in connection with Health Lessons, make the work a study of skin, scales, hair, claws and hoofs.

LITERATURE.

(*a*) **The Pilgrims.**

Plymouth.
Thanksgiving poems, stories and songs.

(*b*) **Whittier.**

Life and home.

Barbara Frietchie.

Corn Song.

The Pumpkin.

Word pictures from Snow Bound.

The Robin.

Barefoot Boy.

(*c*) **Christmas Stories and Songs.**

DRAWING.*

(*a*) **Appearance.**

Model and draw potato and pumpkin.

Appearance of the circle, hemisphere, half apple and cone.

NOTE.—Models are to be represented in different positions,—below, on a level with, and above the eye.

(*b*) **Christmas.**

See App. D 5 for list of photographs.

Make offerings based on forms previously studied.

ARITHMETIC.

Through 49, notation and numeration extended to 1000. In explaining subtraction, extend the method of second grade, using a child each for hundreds, tens and units. In explaining addition and multiplication, lay out the toothpicks (hundreds, tens, units) on an inclined plane (book or board) where all can see.

* See App. D 6 for correlation of art with nature study and geography.

January, February.

GEOGRAPHY.

River Basin.

Boundary, slopes.

All the land divided into river basins. River where.

Head, source, mouth, delta, channel, bed, tributaries, banks, falls. Why rivers wind.

Rivers.

Uses to land, to man.

Animals.

Seal, whale, eider duck, white bear.

Eskimo.

Appearance, houses, utensils, food, means of livelihood, sports.

NATURE STUDY.

(*a*) **Plants.**

The Pine. Shape of tree. Bark. Number of leaves on stem. What are the small marks on the stem below the leaves? Why are the leaves called needles? What is their shape? Notice buds at the end of the stems. Are all alike? What will they become? How are the scales arranged in the cones? Notice depressions on surfaces of the scales. Find seeds. Where? Notice the motions of a falling seed by allowing one to drop. What is the use of the wing? Teach the meaning of *evergreen*.

(*b*) **Animal Life.**

Adapt to geography outline.

(*c*) **Health Lessons.**

The hair. Compare with hair, feathers and scales of lower animals. Uses of hair. Protection, defense, color and beauty. The eyelashes are sense organs.

The nails. Compare with claws of cat, dog, fowl, hoofs of horses. Uses.

Care of hair and nails.

LITERATURE.

(*a*) **Longfellow.**

Life and home.

The Village Blacksmith.

Harvest Moon.

Snowflakes.

From my Armchair.

Children's Hour.

Whither?

Springtime.

Rain in Summer.

(*b*) **Stories.**

The Discontented Pine.

The Sleeping Beauty.

DRAWING.

(*a*) **Appearance.**

Appearance of wire cylinder or cylindrical tumbler; wooden cylinder and cylindrical objects,—as box, cuff, and glass partly filled with water.

(*b*) **Construction.**

Cut and draw an equilateral triangle.

Teach construction of the hexagon. Cut and draw.

Model triangular prisms. Develop, cut, draw and paste patterns.

ARITHMETIC.

Through 81.

March, April.

GEOGRAPHY.

The sun, sunbeams, what they are and what they do.

Water; the effect of heat on water; of cold.

The air, wind, vapor, dew, mist, fog, clouds, rain, snow, ice, hail, sleet.

NOTE.—Present these subjects objectively and orally at first, with experiments as many and full as may be found practicable under the circumstances, and then supplement the work by reading such portions of Sheldon's Third Book in Supplementary Reading as treat of these subjects; and such portions of other books as may be available.

Reading the thermometer.

Animals.

Camel, horse.

The Arab. (Outline as before.)

NATURE STUDY.

(*a*) **Plants.**

Twig study. Development of a few kinds of buds in the room. Markings on the stem. What has caused them? How can the age of a branch be told? Number and arrangement of the leaves in the bud. Where is the flower in the bud? Begin germination of seeds. Examine the seed of the bean carefully, learning to know the parts. Watch the development of a bean plant during the remainder of year.

(*b*) **Animal Life.**

Adapt to geographical outline. Watch the cocoons saved from September. Keep a record of the returning birds.

Train the children to give accurate descriptions of the birds they report. Where seen? What doing? Colors of head, breast, throat, wings, etc.

LITERATURE.

(*a*) **Biblical Stories.**

Samson.

Moses.

David.

Joseph.

(*c*) **Fairy Stories.**

The Swan Maidens.

The Ugly Duckling.

DRAWING.

(*a*) **Appearance.**

Sketch in connection with work on buds and germination.

(*b*) **Ornament**

Modification of geometric units regularly. Cut and draw quatrefoil or Maltese cross.

Make and draw surface of modified squares.

ARITHMETIC.

A more formal explanation of problems may be begun at this time, thus:

"Times" Problem.

If one acre of land is worth $4, 7 acres are worth 7 times $4, or $28.

"In" Problem.

If one pair of boots cost $3, as many pairs can be bought for $27 as there are times $3 in $27, or 9 pairs.

"Of" Problem.

If 3 tons of coal cost $18, one ton costs 1-3 of $18, or $6.

But do not expect too much in the way of logical or well-worded explanations. The main thing for the child is to be able to do the problems and know before he begins to do them whether they are "and," "less," "times," "in" or "of" problems.

May, June.

GEOGRAPHY.

Points of compass.
Maps.

Desk-top, schoolroom.

Dictation to test map-knowledge and for review: river flowing east and forming delta; gulf entered by strait from the north; island with mountain in the west. Pupils draw as you dictate.

NOTE.—These dictations will be very simple at first. Vary them so as to illustrate all the terms taught and all the conditions involved in differences of direction.

If found practicable, take a sail down the bay or a tramp into the country. Note effects of showers on streets—the *nameless* streams, gullies, gulfs, islands, peninsulas, etc., formed. We pass from miniature home forms in third grade to striking world features in fourth.

NATURE STUDY.

(*a*) **Plants.**

Gather and keep a record of wild flowers. What insects are noticed visiting the flowers? What attracts the insects? How are they guided to that which they desire? Press and mount fifteen wild flowers for class herbarium. Know the parts of a *plant*.

(*b*) **Animal Life.**

Let each pupil watch one bird or pair of birds in a tree in his own yard or vicinity. Write observations in the form of a diary.

(*c*) **Health Lessons.**

The teeth. Uses. First set; number. Second set number. Shapes. For what each shape is adapted. Care of the teeth.

LITERATURE.

(*a*) **Fairy Stories.**

Pea Blossoms.

Daisy.

(*b*) **Patriotic Stories.**

DRAWING.

(*a*) **Appearance.**

Sketch flowers, leaves and fruits.

(*b*) **Ornament.**

Modify oblong bilaterally to form rhombus or kite.

Paste and draw a radial arrangement (hexagon, quatrefoil or equilateral triangle as background; rhombus or kite as unit).

Use leaves or top view of a flower, as syringa, for border Paste and draw.

ARITHMETIC.

Review.

Fourth Grade.

General Observations.

See "Unity of Work," second and third grades, for suggestions.

In fourth grade, strictly childhood conditions have ceased to prevail. Control is less easy. Pupils begin to drop out to go to work. There are difficulties and discouragements peculiar to the grade. Keep a firm hand but still strive to stand close to the child. Maintain good discipline but keep up the interest and friendly relations. Do not let the subjects isolate themselves too suddenly. Correlate much as before. In short, make the transition from the primary grades in all respects *gradual.*

Reading.

Hitherto the reading books have contained little the pupil did not already know. From this time on he will read more for information. Shade off the transition to make it easy. Do not let the adult treatment come too soon. Read second, third and advanced second readers and books classed as such; also, perhaps, the easy parts of fourth readers. Make the reading supplement the other work. In this sense the reading should be practically all supplementary. Have enough of it, but not too much. Make it hard enough, but not too hard. Under a painful

consciousness of difficulties, fluency of expression and the ready grasp of thought are alike sacrificed. Avoid an uphill drag. Pupils should not encounter more than two or three new words upon a page,—sometimes not any.

Encourage home reading. Pay increased attention to articulation, general voice culture, and individual manners. Special correctives need to be applied at this time to keep the voice clear and the bearing erect. Require the pupils, using their own words, to reproduce what they read. This reproduction may come *between* silent reading at seats and oral reading in class. Use "The World by the Fireside," "The Sea and its Wonders" and other books of which only a single copy is furnished, for one to read while the others listen. The teacher may reproduce before and the pupil after this reading. *The essential glory of education is the awakening of intellect and the ennobling of character, resulting in the general enrichment of life.* Pick out and time the reading to keep to this high ideal, making method, subject matter and the treatment of the thought alike subservient thereto.

SPELLING.

Train the pupil to take a pride in correctly spelled manuscript and to feel that he *must* become a good speller. Drill upon the words he is likely to misspell before requiring him to write. Good spelling can be secured only through hard work. Change the devices frequently to relieve monotony and avoid weariness. Connect all the exercises in spelling as closely as possible with the other work. Continue the drill in phonics, and begin to teach the use of the dictionary.

TECHNICAL WORK IN LANGUAGE.

Teach (*a*) the formation of possessive plurals, avoiding special difficulties, (*b*) the uses of all the more important diacritical marks, (*c*) the placing of the accent in syllabication, (*d*) the uses of the forms of forty or more of

the most common irregular verbs, and (*e*) the use of quotation marks in unbroken quotations. Dictate sentences to apply the above instruction. Give attention to paragraphing. Review the work of previous grades. Continue letter writing. Write receipts for money. Explain some of the more common prefixes and suffixes.

NATURAL PHENOMENA.

Keep a record of the sky (appearance), rain and snow, temrature, dew or frost, sunrise, sunset, moon's phases, evening star, morning star.

COLOR.

Teach meaning of standard, hue, tone, key tone, tint, shade and scale of color.

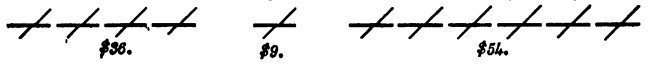
Paste scales of three spectrum standards and six spectrum hues beginning with violet-red and following the order found in the spectrum.

Designs to illustrate dominant harmony.

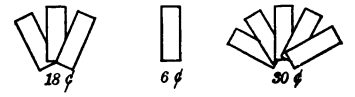
ARITHMETIC.

It is expected that before the end of the year the pupil will become proficient in the solution of oral problems like these:

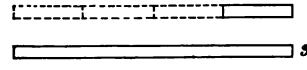
If you can buy 4 ploughs for $36, how many can you buy for $54?



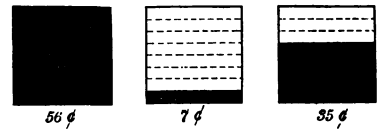
If 3 tickets to Providence cost 18c., what would 5 tickets cost?



If ½ of a yard of ribbon is worth 8c., what is a whole yard worth?



What would ⅛ of a pound of tea cost at 56c. a pound?



If a man had one dollar and spent ⅛ of a dollar, what part of a dollar would he have left?

2 pecks and 3 quarts are how may quarts?

24 quarts make how many gallons?

Picture some of the problems, analyze some. Grade carefully.

In the solution of written problems the pupil should reveal the character and in part the phraseology of the problem by writing out just enough of it to make the solution available for a good *turn about* language exercise, thus:

$275 for 1 house lot	$2500 man had
9	2475 paid for lots
$2475 for 9 house lots	$25 left

9 (days)	36 miles
miles |360) 3240 miles	(hours) 7) 252 miles

As a part of the language work, use such outlines as the above to reproduce the problems that correspond.

Correlate arithmetic with geography by making some of the problems bear upon the cost of living in the countries visited, the distances traveled, rates of speed, price of tickets, etc.

Definitions and terms of addition, subtraction, multiplication, division and a fraction; use of the sign ÷; notation and numeration extended to 1,000,000; addition of ledger columns—confining the work to columns containing less than nine figures and footing up less than fifty.

Divide circles and lines into halves, fourths, eighths, thirds, sixths, fifths. Dictate for the drawing of lines at seats: *two inches*, *six inches*, *nine inches*, *one inch*, etc. At the end of these lines the pupil expresses the length in the fraction of a foot, as $\frac{1}{6}$ *ft.*, $\frac{1}{2}$ *ft.*, $\frac{3}{4}$ *ft.*, $\frac{1}{12}$ *ft.*, etc. The same at the board for the parts of a yard.

September, October.

GEOGRAPHY.

Map of school yard.

Map of neighborhood.

Study carefully some limited portion of the Blackstone Valley.

Mold and map (roughly) the islands and shores of Narragansett Bay. Get a good general idea of the whole basin. If practicable, take a trip down the Bay or a tramp into the country.

Tides in the Bay.

Number a day. Names. How high up the river do they come? Rise and fall at Division Street Bridge; at Goff's mill.

Teach the difference between a building and a wearing coast.

NOTE.—West of Point Judith, Rhode Island affords a good example of a building coast, while Narragansett Bay, with its islands and peninsulas parallel with the river bed, illustrates a wearing coast.

Journeys to New York and Boston, the former by water and the latter by rail.

Sound steamers.

Time tables and how to use them.

Comparative size of New York, Boston, Providence and Pawtucket. (Illustrate by circles and make up problems.)

NATURE STUDY.

(*a*) **Plant Life.**

Leaves—parts, apexes, margins, bases, petiole, kinds, shapes, arrangements, venation. Collect, press, mount and name. Gather and name the flowers. How are the seeds scattered? Gather seeds for spring work.

(*b*) **Animal Life.**

Distinguish animals as to structure—vertebrate and invertebrate—mammals, birds, reptiles and fishes, mollusks, insects and radiate animals. Make list of vertebrates having the spine in an erect position, horizontal, inclined.

LITERATURE.

(a) Whittier.

Education, character and public life. What called? Barbara Frietchie. [Begun.]

(b) Myths.

NOTE.—Use throughout the year Firth's *Stories of Old Greece* as the basis of the reproduction work under this head.

(c) History and Biography.

Roger Williams, Samuel Slater, Fulton, Greeley, Columbus.

NOTE.—As a basis of much of the reproduction work under this head, use throughout the year Eggleston's *Stories of Great Americans for Little Americans.*

DRAWING.*

Appearance.

Sketch leaves,—as elm, chestnut. Sketch sprays of leaves. Vary lines to express texture and distance.

Sketch fruits and vegetables (singly and in simple groups). Indicate shade side.

NOTE.—Throughout the year, time is allowed for much color work. Encourage *time sketches* and *memory drawings.*

ARITHMETIC.

Teach to find areas and dimensions of rectangles. With foot-squares of cardboard placed on floor, illustrate boards, sidewalks, flower beds, etc., or with inch-squares on desk top, illustrate book-covers, report-cards, envelopes, etc. In making a new figure displace as few of the squares in the old figure as possible.

Take up long division in this connection and use it to find length and breadth of rectangular areas—all dividends to be expressed by two figures during the first month and

*See App. D 11 and 6 for correlation of art with geography and nature study.

less than four figures during the second.

Chiefly one-step problems.

NOTE.—At the beginning of the year, test the pupils in the multiplication table to see how well they have retained it during the long vacation. They should be thoroughly familiar with it before resuming written work involving its use.

November, December.

GEOGRAPHY.

The earth as a whole.

Form, size, motions.

Hemispheres, continents, oceans.

Mold North America (teacher).

Our country, state, county. Who is President? Who is Governor?

The Stars and Stripes.

Is there a star for Rhode Island? a stripe? Teach a flag salute.

Journey to Washington and Mount Vernon via Philadelphia.

Journey to Chicago. (Go by rail and return via the Great Lakes.)

Canals.

Collect pictures.

Form cabinets.

NATURE STUDY.

(*a*) **Plant Life.**

Pumpkin. Where did it grow? appearance, parts, uses.

(*b*) **Animal Life.**

Birds—parts, head, neck, body, beak, crown, throat, breast, wing, tail; foot, toes. Describe generally by color, length, shape and size. Compare the feet of turkey, chicken and duck. Obtain stuffed birds for study. Infer for what different shapes of beak, toes, wings, etc., are adapted. Collect deserted birds' nests. Compare locations, ways of making and material used.

Group the birds—water birds, land birds, aerial birds. Write a description from an outline of points. Sketch head and toes.

Shape of body, colors of parts, bill and neck, wings and tail, legs and toes. Notice resemblances and differences in different birds of each group.

(c) Health Lessons.

Muscles—structure, how they act, kinds, arrangements, tendons, important muscles, uses, exercises.

LITERATURE.

(a) Poems.

"Birds of Killingworth." [As a story adapted by teacher.]
See Celia Thaxter's "Kingfisher" and other poems.
Word pictures from "Snow Bound."
"Barbara Frietchie." [Finished.]

(b) Myths.

(c) History and Biography.

Marquette, Penn, Franklin, West, Washington.

(d) Thanksgiving Stories and Hymns.

(e) Christmas Stories and Songs.

See "Little Town of Bethlehem," by Phillips Brooks.

DRAWING.

Appearance.

Draw objects,—as circular box with cover, lard pail, cut pie, inverted flower pot, funnel, milk-can.

ARITHMETIC.

Long division continued. Dividends to be expressed by less than five figures. Connect the work with some *purpose*, as

the reduction of improper fractions to whole or mixed numbers, the reduction of denominate numbers or finding the dimensions of rectangles. The problems for the rest of the year will be chiefly two-step problems. Let the numbers handled be small, diminishing the liability to error. Encourage quick, sharp work.

January, February.

GEOGRAPHY.

Heat, wind, rain.
Change of seasons.
Heat belts and plants and animals of same.
See Frye's Primary Geography, pp. 75–85.
Journey to Arctic Regions.
Glaciers, icebergs, Eskimo, northern lights, Greenland, Iceland, Hudson Bay.
In connection with primitive races, as visited during the year, read "People," Frye's Primary Geography pp. 55–74.
Journey to Scandinavian peninsulas.
Denmark, Norway, Sweden, North Sea, Baltic, Hammerfest, midnight sun, Laplanders.
Journey to heated belts.
Gulf of Mexico, Mississippi River, New Orleans, Florida, West Indies, Caribbean Sea.

NATURE STUDY.

(*a*) **Forms of Water.**

Evaporation—vapor, steam.
Condensation—cloud, fog, mist, rain, dew.
Freezing—frost, hail, ice, snow.
Teach by simple experiments. See Gifford's Physics; also, Sheldon's Third Book in Supplementary Reading.

(*b*) **Minerals.**

Building-stones—marble, granite, sandstone and slate. What qualities adapt them for building purposes. Various uses. In the geography journeys note the localities famous for these kinds of quarries, and the uses to which these stones have been put. Are any quarried or used in Pawtucket? Rhode Island?

(*c*) **Plant Life.**

Compare the elm and maple as to shape, color, branches, bark. Compare hemlock and spruce as to shape and number of leaves in a bundle, shape, size and position of cone, and shapes of entire trees.

(*d*) **Animal Life.**

Are there any birds out of doors now? Upon what do they live? Where do they stay?

LITERATURE.

(*a*) **Poems.**

From "Round the World with the Poets," *The South*, p. 22; *Icebergs*, p. 27; *Northern Seas*, p. 30; *Norway*, p. 38; also, *Bidding the Sun "Good Night" in Lapland.*
From Whittier's "New Year," four stanzas describing the *seasons.*

(*b*) **Myths.**

(*c*) **History and Biography.**

Cabot, Cartier, Hudson, Kane, Balboa.

DRAWING.*

(*a*) **Appearance.**

Draw groups of objects,—as lemon and glass partly filled with water, root beer bottle and tumbler, fan and vase.

* See App. D 12 for correlation of art with nature study.

(*b*) **Construction.**

Cut and draw an octagon.

Classify geometric figures previously studied under three heads,—curvilinear, rectilinear and mixtilinear figures.

Make a rectilinear figure having the fewest boundaries possible. Make an equilateral triangle. Place two equilateral triangles so that one side of one of them may coincide with one side of the other. Draw, cut and paste the pattern of the solid requiring the least number of equilateral triangles for faces.

ARITHMETIC.

Long division continued. Dividends to be expressed by less than six figures. Continue previous applications of the process and connect with finding the value of x in equations like this: $27x=702$.

March, April.

GEOGRAPHY.

The Ocean.

Tides, waves, bed, depth.

Seaweed, Gulf Stream, coral islands.

Fisheries, cables, steamships, lighthouses.

Why the ocean is salt.

What becomes of the rain?

Springs, rivers, distribution of soil.

Wells, salt lakes.

Journey to the British Isles.

NATURE STUDY.

(*a*) **Minerals.**

Salt.

(*b*) **Plant Life.**

Review parts of seed. Plant various kinds—wild and cultivated. Observe and compare growths in different stages of development. Record name, locality, and date of the first specimen of each of the spring flowers.

(*c*) **Animal Life.**

Returning birds. Keep a record of date when first seen. Observe kinds and positions of nests. Make a special study of the blue-bird and robin—parts, habits, home, beauty and song. Pupils represent the song on the musical staff.

LITERATURE.

(*a*) **Poems.**

"Fishermen." [Whittier.]

"The Light-Houses." [Larcom.]

See Celia Thaxter's poems of the sea.

(*b*) **Myths.**

(*c*) **History and Biography.**

Magellan, Da Gama.

DRAWING.*

(*a*) **Construction.**

Develop, cut, draw and paste the pattern of the square pyramid.

(*b*) **Appearance.**

Sketch in connection with work in buds and germination.

* See App. D 11 for correlation of art with geography.

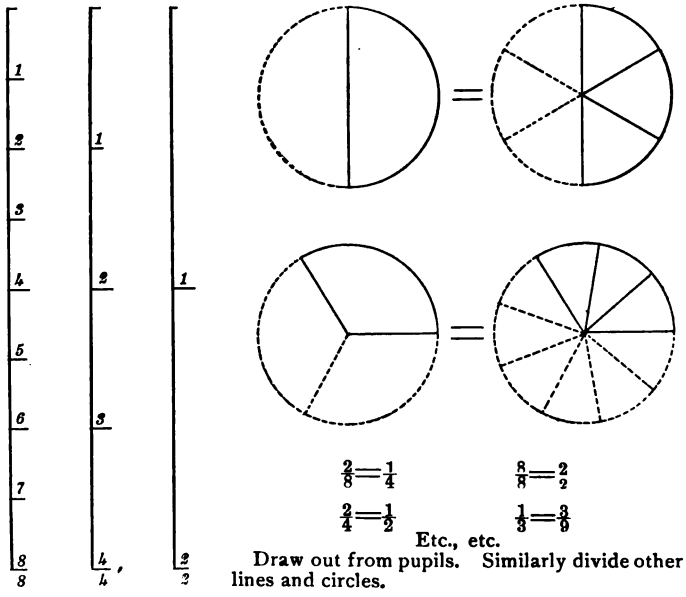
(c) **Ornament.**

Teach modification of bilateral units. Copy simple illustrations from historic ornament.

Make and draw a surface of bilateral units.

ARITHMETIC.

Addition and subtraction of fractions whose denominators are alike. Sight reading of equivalent values, thus:



Etc., etc.

Draw out from pupils. Similarly divide other lines and circles.

Try to bring out from pupils that multiplying or dividing both terms of a fraction by the same number does not change its value.

Reduction of fractions to lowest terms.

May, June.

GEOGRAPHY.

Journey around the world.

Through the Mediterranean and the Red Sea, across India,

around Farther India to China and Japan, across the Pacific Ocean to San Francisco, thence home via three routes: overland, Panama and Cape Horn.

The following topics will be made prominent:

The peninsulas and people of the Mediterranean, the caravans and Great Desert of North Africa, Egypt and the Nile and the Suez Canal.

Silk, wine, olives, tea and coffee.

India, China and Japan.

NATURE STUDY.

(*a*) Plant Life.

Continue comparisons of growths from seeds, also the flower study. Make a special study of the rose family, making class herbarium.

(*b*) Animal Life.

Continue observations of blue-bird and robin. Learn to know the names of several birds, their parts, habits, beauty and song.

LITERATURE.

(*a*) Poems.

Arbor Day Selections.

"Palm Tree." [Whittier.]

Short selections from "Round the World with the Poets," as *Egypt*, p. 51; *Arabia*, p. 52; *Camel*, p. 70; *Venice*, p. 67; *Vesuvius*, p. 47.

(*b*) Myths.

(*c*) History and Biography.

Audubon, Boone, Jefferson, Clarke.

DRAWING.

(*a*) **Appearance.**

Sketch flowers, with their leaves.

(*b*) **Ornament.**

Use top view of flower,—as bluet or lilac, for border. Paste and draw.

Make and draw a design in an octagon. Use bilateral or leaf forms as units.

Make an original design.

ARITHMETIC.

Review carefully all the various lines of work laid down for the year.

Fifth Grade.

GENERAL OBSERVATIONS.

See previous grades for the unification and gradation of the work and the isolation of subjects. The grade is *intermediate* and so must the work be. The pupil will respond properly if the work is suited to him.

READING.

Read third readers and books classed as such; also the easy parts of fourth readers. Practically all the school reading should be supplementary (in the sense of *collateral*) although the home reading, recommendations for which should be furnished by the teacher, may be of a more general character. Encourage the use of the public library. Continue to pay particular attention to general voice culture and the personal manners and bearing of the pupils, not a few of whom are to leave school for work at an early day. Physical training, hygiene and music should be correlated with reading through breathing and other exercises and through special vocal drills, all designed to improve the physique and give increased lung power, while serving at the same time to smooth away the inequalities of the voice and impart greater skill in placing and throwing out the tones. Much can be done at this time to improve the voice, carriage and general appearance, or at least *prevent* the formation of bad habits.

Among the supplementary reading books furnished are the following: first (in sets), "Our Own Country," Hawthorne's "Wonder Book," Wright's "Stories from American History" and Bryant's poems (Riverside Edition); second (single copies for one to read while the others listen), "Our American Neighbors," "Stories of American Life and Adventure" and "Stories from History of Rome."

SPELLING.

Use spelling books for special lists of words, but select mainly from the books read and subjects taught, relying especially upon the daily composition exercises for practical tests and maintaining in connection with them a persistent thorough drill.

TECHNICAL WORK IN LANGUAGE.

Continue phonic drill and instruction in the use of the dictionary. Cultivate the conversational powers of the pupils. Correct errors in such a way as not to hinder freedom of expression. Do not, however, feel bound to correct all the errors made, either in the oral efforts or in the writing. Give increased attention to paragraphing. Write orders for goods and receipts for money paid. Review letter writing. Teach plurals and possessives of words ending in *y*, *o*, *f* and *fe*, and the use of quotation marks in broken and unbroken quotations.

Add twenty or more irregular verbs to the fourth grade list and teach the use of their forms. In general, review and extend the work of preceding grades, depending largely upon dictation exercises for practice in applying the principles involved.

NATURAL PHENOMENA.

Learn the positions of Ursa Major, Ursa Minor, Polaris, Orion, Pleiades, Castor and Pollux, The Milky Way. Cut paper stars and place in positions observed. (Class chart.)

POEMS.

It is not intended that the entire list given by months shall be taken or that entire poems shall always be taught. To correlate with the other work, select also from "Round the World with the Poets."

COLOR.

Paste scales of six spectrum standards and twelve spectrum hues beginning with violet-red and following the order found in the spectrum.

Designs to illustrate dominant harmony.

ARITHMETIC.

Addition, subtraction, multiplication and division of fractions throughout the year, the four processes being carried along together. Pupils find least common denominator by observation,—not by rule. The only rule to be taught (memorized) during the year is that for multiplying one fraction by another. Addition of ledger columns. Long division. Bills of one item chiefly to get form. Take first forty lessons in Pawtucket Problem Book. Review fourth grade denominate numbers, mensuration (rectangles) and oral problems. Take the following kinds of oral problems in addition to those of fourth grade:

A boy bought a knife for $\frac{1}{4}$ of a dollar and a book for $\frac{3}{8}$ of a dollar. What part of a dollar did he pay for both?

A man who had $\frac{3}{4}$ of a dollar, spent $\frac{3}{8}$ of a dollar. What part of a dollar did he have left?

What is the cost of 5 pounds of tea at $\frac{3}{4}$ of a dollar a pound?

If 5 pounds of coffee cost $\$\frac{7}{8}$, what is the cost of 1 pound?

Find .75 of 8; of 16; of 20.

What is $66\frac{2}{3}\%$ of 9? 18? 21?

(All problems in percentage to be confined to those in which it is required to find a part or product, and not the *base*.)

If $\frac{1}{2}$ of an acre of land cost $6, what does an acre cost?

Find the value of x in equations like these: $2x=\$7\frac{1}{2}$; $\frac{1}{4}x=3\frac{3}{4}$ yards, etc.

September, October.

GEOGRAPHY.

Review form, size and motions of the earth and natural belts of heat and cold, but leave the artificial divisions of the earth's surface into *zones* for the next grade.

The world ridge.

Physical South America.

Position, outline, relief, drainage, climate, winds, rainfall, forests.

Condor, Llama.

Use globe, moulding table, maps, charts and pictures to make treatment objective and work interesting. Bring out striking facts and features.

NATURE STUDY.

(*a*) **Minerals.**

Calcite, dolomite and gypsum. Know characteristics and uses.

(*b*) **Plant Life.**

Fruits—pome, drupe, berry, dry fruits, etc. Observe, compare and make a list of fruits of each kind. Collect seeds of various grains, grasses and wild flowers. Make a special study of the distribution of seeds.

(*c*) **Physics.**

1. Nature of matter. 2. Divisions of matter, mass, molecule. Gifford's Physics, pp. 1–7, 165–169.

LITERATURE.

(*a*) **Bryant.**

Life.

Poems.

"A Lifetime."

"The Song of the Sower."

"Autumn Woods."

"To the Fringed Gentian."

"October."

"Autumn." [Longfellow.]

(*b*) **Mythical and Biographical.**

NOTE.—As the basis of much of the reproduction work under this head, use throughout the year Beesly's *Stories from the History of Rome*, and Hawthorne's *Wonder Book*.

(*c*) **American Biography and History.**

NOTE.—As the basis of much of the reproduction work under this head, use throughout the year Wright's *Stories from American History* and Eggleston's *Stories of American Life and Adventure*.

DRAWING.

Appearance.

Sheets 1, 2, 3. Drawing of simple leaves—serrate, dentate, lobed (the third sheet, individual work). Vary lines to express texture, distance, light and shade. Teach use of eraser.

Sheets 4, 5. Drawings of sprays of leaves,—as honeysuckle, morning glory, quince, apple (the fifth, individual work).

Sheet 6. Drawing of concentric circles held below the eye.

NOTE.—Throughout the year the lessons will be class exercises unless otherwise stated. Time is allowed for color teaching, directions for which will be given at grade meetings.

ARITHMETIC.

Find the sum of $\frac{1}{2}$ and $\frac{1}{4}$, the difference between them, their product, the quotient of one divided by the other; the same, substituting a small integer in place of one of the fractions, and the same, adding a small integer to one or both of the fractions.

Methods of Multiplying and Dividing.

What would $3\frac{1}{2}$ cords of wood cost at $\$6\frac{1}{2}$ per cord?

At $\$\frac{1}{4}$ for one yard, how many yards of muslin can be bought for $\$12\frac{1}{2}$?

$\$6\frac{1}{2}$ for 1 cord
$3\frac{1}{2}$
$\frac{1}{2}$
$1\frac{1}{2}$
$1\frac{1}{2}$
18
$\$21\frac{1}{2}$ for $3\frac{1}{2}$ cords

$\$\frac{1}{4}$ | $\$12\frac{1}{2}$ for muslin
4 | 4
2
48
1 | 50
50 (yards)

Use these methods throughout the year, writing out enough to make the solution available for a *turn about* language exercise. (See fourth grade.)

NOTE.—In this connection it will often be required to divide a less number by a greater and to find *parts* of numbers, as $\frac{1}{4}$ of 3, $\frac{1}{8}$ of 5, etc. To illustrate $\frac{1}{4}$ of 3, place three equal circles of paper one above another and, curting out a fourth of them all, rearrange the three pieces to show that they make $\frac{3}{4}$ of 1, or $\frac{3}{4}$. Numerous oral problems will be necessary, as $4 \div 5$, $7 \div 8$, $\frac{1}{3}$ of 3, $\frac{1}{8}$ of 5, etc.

Teach to write decimals (tenths and hundredths) and to change $\frac{1}{2}$ and $\frac{1}{4}$ to decimals and back.

Teach 50 % and 25 %.

Teach to find the area of a triangle, the base and altitude being given. In expressing the dimensions, employ fractions and mixed numbers as well as integers.

November, December.

GEOGRAPHY.

After taking up physical North America, following the same general outline as for South America, treat as a unit, in connection with the Eskimo, the Arctic regions of North America, including Greenland, Iceland and the mainland from Bering Strait to the Strait of Belle Isle.

NATURE STUDY.

(*a*) **Plant Life.**

Observe, draw and describe the common fruit trees (orchard trees)—general shape, position of branches, bark, color, buds. Learn to know them without their leaves.

(*b*) **Health Lessons.**

The eye—position, protection, coverings, iris, pupil, crystalline lens, aqueous humor, vitreous humor, muscles, eyelids, eyelashes, eyebrows, tears, care of the eyes.

(*c*) **Physics.**

States of matter. Liquids, solids. Gifford's Physics, pp. 8–13, 169–171.

LITERATURE.

(*a*) **Poems.**

"November."
"White-footed Deer."
"Hymn to the North Star."
"The Constellations."
Selections from "The Courtship of Miles Standish." [Longfellow.]
Selections from "Snow Bound." [Whittier.]
"The Landing of the Pilgrims." [Hemans.]
"Death of the Old Year." [Tennyson.]

(*b*) **Stories from History of Rome.**

(*c*) **American Biography and History.**

DRAWING.

Appearance.

Sheets 7, 8. Drawings of objects,—as flower pot, bottle, sailor hat, cup and saucer (the eighth, individual work).

Sheets 9, 10. Drawings of square prism (two faces visible) and half square prism (turned and two faces visible).

NOTE.—Precede last two sheets with exercises with pasteboard squares to discover foreshortening of square, apparent slant and convergence of one set of retreating edges.

Sheet 11. Drawing of book, box or slate, showing two faces (individual work).

ARITHMETIC.

Teach to write decimals (thousandths) and extend the expressions of United States money to include mills. Add to the list of common fractions handled, $\frac{3}{4}$ and $\frac{1}{8}$. Change to decimals and back. Teach 75 % and $12\frac{1}{2}$ %.

The area and the base, or the area and the altitude of a triangle being given, teach to find the other dimension.

January, February.

GEOGRAPHY.

United States and Canada (English-speaking or Saxon America).

Teach soil, productions, occupations, political divisions, great cities, grouping the work under the following heads: Mississippi Valley, St. Lawrence Basin, Atlantic Slope, Gulf of Mexico, Saskatchewan Valley and Hudson Bay, Pacific Slope.

NOTE.—These divisions furnish natural units of work and are to be preferred to the artificial division by States—"Central States," "Southern States," etc.

NATURE STUDY.

(*a*) **Minerals.**

Coal—sources, kinds, where found, how obtained, uses, history.

Iron—appearance, where found, how obtained, uses.

Connect with the manufactures of Pawtucket.

(*b*) **Animal Life.**

The cat—home, history, covering, head, eyes, tongue, feelers, voice, food, habits. Make a picture chart of the cat family. Uses of the different members of the family.

(*c*) **Physics.**

Changes in matter. Gifford's Physics, pp. 14–15, 171–173.

LITERATURE.

(*a*) **Poems.**

"Little People of the Snow."
"Woods in Winter." [Longfellow.]
"The Building of the Ship."
Selections from "Evangeline."
"Sheridan's Ride." [Read.]
Other patriotic poems in connection with geography.

(*b*) **Stories from History of Rome.**

(*c*) **American Biography and History.**

DRAWING.

(*a*) **Appearance.**

Sheet 12. Drawing of a group,—as books standing or lying down, ink bottle and sheet of note paper, book and glass of water (individual work).
Sheet 13. Drawing of a door partly open (individual work).
Sheet 14. Memory drawing of some object studied.

NOTE.—Keep up practice in object drawing by encouraging one home sketch each week during the remainder of the year.

(*b*) **Construction.**

Sheet 1. Drawings of top and front views of sphere and ovoid. Make use of *construction*, *working* and *dimension lines*.
Sheet 2. Drawings of top and front views of cone and cylinder.

ARITHMETIC.

Add to the list of fractions handled, $\frac{3}{8}$, $\frac{5}{8}$, $\frac{7}{8}$ and $\frac{1}{3}$. Change to decimals and back. Teach $37\frac{1}{2}$ %, $62\frac{1}{2}$ %, $87\frac{1}{2}$ % and $33\frac{1}{3}$ %.

March, April.

GEOGRAPHY.

Same as for two preceding months.

NATURE STUDY.

(*a*) Plant Life.

Plant several kinds of seeds in different positions to observe effect upon germination and time of growth. Use beans, peas, pumpkin or similarly pointed seeds, and corn. Plant each kind one-half inch deep in four positions at the same time. Compare at different stages. Make a series of drawings. Carefully write the results, stating what the experiment teaches. Keep a class record of spring flowers Seek rare ones.

(*b*) Animal Life.

Returning birds. Record characteristics, color, markings, habits, shapes of parts. Learn the names of five birds. Observe the bees among the early flowering trees. Do they harm or help the trees?

LITERATURE.

(*a*) Poems.

"March."
"Return of the Birds."
"Robert of Lincoln."
"The Yellow Violet."
"An April Day." [Longfellow.]
"The Birds."
"Paul Revere's Ride."

(*b*) Stories from History of Rome.

(*c*) American Biography and History.

DRAWING.

(*a*) Construction.

Sheet 3. Drawing of top and front views of objects,—as rose bowl, circular box, flower pot, rose jar.

Teach use of rule and measurements, 1″, $\frac{1}{2}$″, $\frac{1}{4}$″, $\frac{1}{8}$″, $\frac{1}{16}$″.

Sheet 4. Draw lines. Divide first line into 1″ divisions; second into $\frac{1}{2}$″; third into $\frac{3}{4}$″; fourth into $\frac{7}{8}$″; fifth into $\frac{5}{16}$″.

NOTE.—In blank books kept specially for geometrical work, write definitions of point, line, straight line—horizontal, vertical and oblique; broken, composite and parallel lines.

Sheet 5. Develop patterns of solids having more than four equilateral triangles for faces.

Sheet 6. Modification of a simple bilateral form to produce a branching unit.

(*b*) Ornament.

Sheet 1. Copy bilateral branching forms from historic ornament.

ARITHMETIC.

Add to list of fractions handled, $\frac{2}{3}$, $\frac{1}{6}$ and $\frac{5}{6}$. Change to decimals and back. Teach $66\frac{2}{3}$ %, $16\frac{2}{3}$ % and $83\frac{1}{3}$ %.

May, June.

GEOGRAPHY.

Spanish America (or the part of America south of the United States, including the West Indies).

NATURE STUDY.

(*a*) Plant Life

Make a special study of the Crowfoot Family. Press and mount as many parts of each specimen as can be obtained. Record name, locality, soil, date, etc. Have these plants any uses?

(*b*) Physics.

Review lessons of the year.

LITERATURE.

(*a*) **Poems.**

"Our Country's Call."
"Planting of the Apple-Tree."
"The Gladness of Nature."
"Among the Trees."
"Sunrise on the Hills." [Longfellow.]

(*b*) **Stories from History of Rome.**

(*c*) **American Biography and History.**

DRAWING.

(*a*) **Appearance.**

Sheets 12, 13. Sketch leaves and conventionalize (the thirteenth, individual work).

Sheets 14, 15. Sketch flowers (five petaled) with their leaves. Conventionalize top view of flowers (the fifteenth, individual work).

(*b*) **Ornament.**

Sheet 2. Use top view of flower in making a border or surface.
Sheet 3. Make a radial design. Use leaf as unit.
Sheet 4. Original design (individual work).

ARITHMETIC.

Add 6ths and 10ths to the list of fractions.
Review the various lines of work laid down for the year.

Sixth Grade.

READING.

Follow directions for fifth grade, but use fourth readers and books and selections of fourth reader grade, including "Modern Europe," Eggleston's "First Book of American History," Church's "Story of the Iliad" and "Ten Boys," which are furnished in sets; also "Torch Bearers of History" and other books of which only single copies are furnished.

SPELLING.

Follow directions for fifth grade.

TECHNICAL WORK IN LANGUAGE.

Extend the teaching of irregular verbs (use of forms). Extend letter writing to include ordinary business and social forms. Continue teaching prefixes and suffixes. Teach all the ordinary marks of punctuation and their use, including dash, parenthesis, colon and semicolon. Review plurals and possessives and the use of capitals and quotation marks. In general, go over the work of preceding grades, seeking to secure and extend it through much practice in writing and for this purpose employing freely dictation and other exercises.

NATURAL PHENOMENA.

A few general facts about the universe, the solar system, the sun, the stars, the earth as a planet.

POEMS.

It is not intended that the entire list given by months shall be taken or that entire poems shall always be taught. For correlation with geography and art, select also from "Round the World with the Poets" and Longfellow's "Poems of Places."

COLOR.

Teach meaning of *broken* color. Paste broken spectrum scales beginning with red.

Analyze color found in autumn leaves and flowers.

Designs to illustrate dominant and analogous harmonies.

ARITHMETIC.

Addition of ledger columns. Bills. Long division. Notation of decimals (to fourth place the first two months, to fifth the next, to sixth the next). Use for drill books, especially in fractions and the essentials of compound numbers, Pawtucket Problem Book and Prince's Arithmetic by Grades (Book V). Review oral problems of fourth and fifth grades, taking the following kinds for advance:

.75 of the number of leaves in my notebook is 24. How many leaves does it contain?

If 62½ % of the distance to Boston is 25 miles, how far is it to Boston? 3 is what part of 4? what % of 4?

Teach to find the value of x in equations like this: $.05x=20$.

September, October.

GEOGRAPHY.

Physical Eurasia.

Position, outline, relief, drainage, climate, winds, rainfall, desert regions, forests.

Mathematical Geography.

Zones and their boundaries, with enough of latitude, degrees and parallels of latitude to make a connected presentation of the subject.

NOTE.—The assignment in mathematical geography is for the year, especially the latter part of the year, and is to be taken up in connection with the work in arithmetic and drawing. The assignment for fourth grade should be reviewed.

NATURE STUDY.

(*a*) **Plant Life.**

Underground parts of plants. Define and give uses of stems and roots.

Compare a carrot with an onion and a potato.

(*b*) **Animal Life.**

Collect and observe cocoons. Place caterpillars in bottles and observe them make cocoons. Teach meaning of chrysalis, of cocoon. Compare cocoons as to construction, shape, material and position.

The caterpillar. Observe the two forms of feet. Distinguish between worm and caterpillar.

Connect with silk manufactures.

(*c*) **Physics.**

Different Forces. Muscular Force. Gravitation. Gifford's Physics, pp. 16–19, 174–175.

HISTORY AND LITERATURE.

(*a*) **In Connection with Geography.**

Outline history of Europe.

Where the people came from.

First great civilization—Greece.

Second great civilization—Rome.

The Teutonic tribes of the North.

Charlemagne and his empire.

(*b*) **United States History.**

NOTE.—The basis of the work under this head is Eggleston's First Book. The greater part of the stories should be reproduced orally or in writing.

(c) **Bryant.**

Life and character.

Poems.

"My Autumn Walk."

"Inscription for the Entrance to a Wood."

"The Huskers." [Whittier.]

"The Quaker of the Olden Time." [Whittier.]

"The Spacious Firmament on High." [Addison.]

DRAWING.

Appearance.

Sheets 1, 2. Drawings of compound leaves,—as horse-chestnut, woodbine (the second sheet, individual work). Vary lines to express texture, distance, light and shade.

Sheets 3, 4. Drawings of sprays of leaves,—as maple, oak, blackberry (the fourth, individual work).

Sheets 5, 6. Drawings of groups of fruit and vegetables (the sixth, individual work).

NOTE.—Throughout the year the lessons will be class work unless otherwise stated. Time is allowed for color teaching, directions for which will be given at grade meetings. Require one sketch each week in sketch books to illustrate principles taught.

ARITHMETIC.

Add, subtract, multiply and divide decimals. Change common fractions to decimals and per cents and *vice versa*. Use caret in dividing to show location of point, if the divisor were made a whole number and the dividend proportionately larger, thus:

$$.002 \overline{)\,1.452\,4} \quad 726.2$$

and call attention to the fact that, when this is done, the point in the quotient always comes over the caret in the dividend.

November, December.

GEOGRAPHY.

Spain and Portugal.

France.

Italy.

What are the Latin countries and what characteristics do they have in common? Refer in this connection to the French-speaking parts of Belgium and Switzerland.

NATURE STUDY.

(*a*) Plant Life.

Cone-bearing trees. Distinguish the most common ones, e. g., pine, hemlock, spruce, cedar, arbor vitæ, larch. Notice the soil in which each grows. Distinguish deciduous and evergreen trees. Value of the evergreens. Geographical distribution of evergreens in the continents and adaptations to climate and soil. Read of the lumbering and turpentine interests.

(*b*) Physics.

Different Forces continued. Cohesion. Adhesion. Heat. Light. Magnetism. Gifford's Physics, pp. 19–21, 176–177.

HISTORY AND LITERATURE.

(*a*) In Connection with the Latin Countries.

The story of the Moors.

The Alhambra.

One story from Irving's *Alhambra*.

Spain and the New World.

Joan of Arc.

Napoleon.

The French Republic.

The Story of the Roman Republic.

Julius Cæsar.

Dante.

(*b*) **United States History.**

(*c*) **Poems.**

"November."
"The New Moon."
"The Twenty-second of December."
"Christmas Bells." [Longfellow.]
"The First Snowfall." [Lowell.]
"Horatius at the Bridge." [Macaulay.]

DRAWING.*

*See App. D 11 for correlation of art with geography.

Appearance.

Sheets 7, 8. Drawings of cube or square prism at 45° (three positions—below and above the eye, and eye opposite centre). Explain terms *horizon* and *vanishing points*. Teach pencil measurement and use as a test for correctness of work.

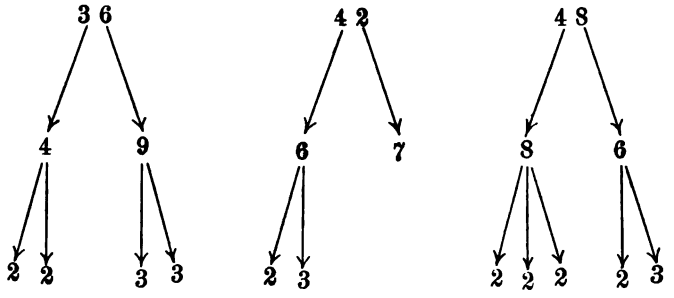
Sheet 9. Drawing of corner of a room. Represent principal lines only (individual work).

Sheet 10. Drawing of square prism at any angle.

Sheet 11. Drawing of a rectangular object,—as box or book (individual work).

ARITHMETIC.

Prime and composite numbers. Factoring. Factor mentally all numbers met with in saying the multiplication table, by first resolving into any two convenient factors, thus: $36=4\times9$; $4=2\times2$; $9=3\times3$. The prime factors of 36 are 2 twos and 2 threes. Do not let the pupils say, "The prime factors of 36 are $2\times2\times3\times3$." The factoring may be pictured thus:



January, February.

GEOGRAPHY.

Greece.
Austria-Hungary.
The Ottoman Empire.
Turkey in Europe.
Turkey in Asia.
Roumania, Bulgaria, Servia, Montenegro.

NATURE STUDY.

(*a*) **Plant Life.**

Utility of plants and their products. Why are plants made up of the different parts? Which part would have the best chance of living if separated from all other parts? Make a list of foods obtained from plants. Classify according to the part from which they are taken. Various beverages and luxuries may be included. What other uses do we make of plants? Relations to history and art. Practical lessons in ways in which we can care for and preserve the plants. Mention some uses made of parts of plants in the manufactures of Pawtucket.

(*b*) **Health Lessons.**

The ear, the outer ear, auditory canal, protection, the middle ear, eustachian tube, the inner ear, the auditory nerve. How we hear. Care of the ear.

(c) **Physics.**

Molecular Attraction. Solution and Crystallization Capillary Attraction. Absorption of Gases. Gifford's Physics, pp. 26–30, 180–182.

HISTORY AND LITERATURE.

(a) **In Connection with Greece and Other Countries.**

Story of siege of Troy.
Homer.
Alexander.
Story of Socrates.
Temples.
Stories of the Danube.
Maria Theresa.
Constantine and his city.
Mohammed.

(b) **United States History.**

(c) **Poems.**

"A Winter Piece."
"The Snow Shower."
"The Death of Lincoln."
"Snowflakes." [Longfellow.]
"Psalm of Life." [Longfellow.]
"Parting of Hector and Andromache." [Iliad.]

DRAWING.*

*See App. D 11 for correlation of art with geography.

(a) **Appearance.**

Sheet 12. Drawing of a group of objects,—as books, book and vase, basket and fruit (individual work).

Sheet 13. Memory drawing of some object studied.

(b). **Ornament.**

Sheet 1. Copy Greek ornament,—as anthemion. Connect with work in geography.

(c) **Construction.**

Teach use of compasses. Write definition of curved line.

Sheet 1. Drawing of circle and its parts,—circumference, semi-circumference, center, diameter, radius, semi-circle, quadrant, sextant, sector, arc, chord and tangent. Write definitions.

Sheet 2. Drawing of lines parallel to a given line. Write definition of parallel lines.

ARITHMETIC.

Least common multiples of numbers less than 100.

Example:

Find least common multiple of 40, 60 and 75.

$40=2\times2\times2\times5$

$60=2\times2\times3\times5$

$75=3\times5\times5$

Apply this rule: Having arranged the prime factors of each one of the numbers in a separate line, take 2 as a factor of the L. C. M. the greatest number of times it occurs in ANY one of the lines.

Take 3, 5, etc., in the same manner.

$2\times2\times2\times3\times5\times5=600=$L. C. M.

It is well to call attention to the fact that, by changing ANY to EVERY, the same rule answers for finding the G. C. D.; although the subject of greatest common divisor is one that may as well be omitted.

Add and subtract fractions whose L. C. D. is not readily seen, but confine the work to fractions whose denominators do not exceed 100.

March, April.

GEOGRAPHY.

Norway, Sweden, Denmark.

Germany.

Holland and Belgium.
Switzerland.
What are the Scandinavian countries? the Teutonic countries? What characteristics do these countries have in common? Compare them with the Latin countries.

NATURE STUDY.

(*a*) **Plant Life.**

Buds of horse-chestnut—scales, leaves in the bud, flower-cluster, use of wool and gum, position of bud on the stem, dots on the leaf-scars. Compare lilac buds with those of the horse-chestnut.
Record wild flowers brought into the school-room—date, name, soil, locality.

(*b*) **Physics.**

Momentum. Inertia. Gifford's Physics, pp. 33–34, 185–186.

HISTORY AND LITERATURE.

(*a*) **In Connection with the Teutonic Countries.**

Story of the Norsemen.
Hans Christian Andersen.
John Ericsson and the ironclads.
Cologne and the Gothic cathedrals.
Goethe and Schiller.
The New German Empire.
Hans Brinker.
Story of William Tell.
Story of the Swiss Republic.

(*b*) **United States History.**

(*c*) **Poems.**

"Our Fellow Worshippers."
"An Invitation to the Country."
"The Builders." [Longfellow.]
"The Launching of the Ship." [Longfellow.]
"The Daffodils." [Wordsworth.]

DRAWING.*

*See App. D 11 for correlation of art with geography.

Construction.

Review quadrant and sextant. Write definition of angle, sides and vertex of an angle, and tell how an angle is measured.

Sheet 3. Bisect lines. When are two lines perpendicular to each other?

An angle of 90° is what kind of an angle? Bisect a right angle. Bring out that an acute angle contains less than 90°; an obtuse angle more than 90°. Write definitions.

Sheet 4. Construct angles of 45°, 90° and 135°. Write explanation.

Sheets 5, 6, 7. 8. Working drawings (three views) of square pyramid, cube and equi. tri. prism at 45°, and Greek cross.

Sheet 9. Develop, cut and paste pattern of Greek cross.

ARITHMETIC.

Division by inverting terms of the divisor. Cancellation. Very little abstract work. Connect with the solution of practical problems.

Teach to find areas of circles and to use ratio 3.1416 to find circumference and diameter.

May, June.

GEOGRAPHY.

The Russian Empire.
Russia in Europe.
Russia in Asia.
Japan.
China.

NATURE STUDY.

(*a*) **Plant Life.**

Continue record of wild flowers.

Arrangement of flowers on the stem—solitary, or in racemes, corymbs, umbels, spikes, heads, catkins. Illustrate each arrangement by as many flowers as possible.

Special study of the dandelion. How do the leaves grow? Watch formation of the bud as it pushes up from the root. Tell how the bud coverings change. Height of bud when it first opens. Which part of the head opens first? Opening and closing. Examine a single flower with magnifying glass—draw, describe. When seeds are ripened draw one with all the attached parts and show which were present in the flower. Uses of the dandelion.

(*b*) **Physics.**

Resistance of the air, of inertia, of friction, of muscular force. Gifford's Physics, pp. 35–27, 187–188.

HISTORY AND LITERATURE.

(*a*) **In Connection with Russia.**

The Volga and Moscow (stories).

The Kremlin.

Peter the Great.

(*b*) **United States History.**

(*c*) **Poems.**

"The New and the Old."

"A Forest Hymn."

"A Day of Sunshine." [Longfellow.]

"The Chambered Nautilus." [Holmes.]

"The Charge of the Light Brigade." [Tennyson.]

DRAWING.*

*See App. D 11 for correlation of art with geography.

(*a*) **Appearance.**

Sheet 14. Sketch flower with its leaves. Conventionalize leaf and flower (individual work).

(*b*) **Ornament.**

Sheet 2. Copy spiral curves from historic ornament. Use this suggestion with conventionalized flower or leaf to form a border (individual work).

Sheet 3. Use plant forms in making a radial design (individual work).

Sheet 4. Make surface decoration.

ARITHMETIC.

Review fractions, strengthening the weak places. Review compound numbers. The pupils should know these tables: long measure, square measure, cubic measure, avoirdupois weight, measure of time, dry measure, liquid measure and circular measure.

Seventh Grade.

READING AND LITERATURE.

The fact that the work in geography is chiefly upon Great Britain and the British foreign possessions in the Old World, determines to some extent the character of the reading matter. Among books selected with a view to correlation with the subjects taught are the following: Church's "Stories from English History," Mara Pratt's "Stories from Shakespeare," Badlam's "Views in Africa" and Burrough's "Sharp Eyes."

The special poet of the year is James Russell Lowell. The degree of prominence to be given to his life and writings is left largely to the teacher.

NOTE.—"The Vision of Sir Launfal" is in the hands of the pupils and the following selections have been made as being also well adapted to the grade and likely to be of service in connection with the other work:—

The Fatherland.
Columbus.
Interview with Miles Standish.
Jonathan to John (from Bigelow papers).
To a Pine-tree.
The Oak.
To the Dandelion.
Under the Willows.
The First Snow-fall.
The Singing Leaves.
Under the Old Elm.
The Nest.
The Maple.

Selections should be made also from Holmes, Hawthorne and other writers, with the same object in view as above, viz: to provide not only that which is choice in itself but that which is capable of throwing *side lights* upon the other work. The accomplishment of this double purpose in the reading and literature is one of the distinguishing aims of this course of study, and should never be lost sight of. Through it the pupil should be led, moreover, to see what a close connection exists between the public school and the public library, and what a noble use he can make of the latter in extending his school facilities, if he is so disposed. In short, beginning with the seventh grade, the pupil should be thrown more upon his own resources in the use of books and should be taught to rely more upon his own judgment in reading as well as in doing.

Vocal drills with a view to securing habitual good tones and distinct articulation should be maintained throughout the year in connection with the music and physical training.

SPELLING.

The pupil should be able to spell practically all the words he encounters in reading.

ENGLISH GRAMMAR.

The work is arranged by months. In connection with it, increased attention should be paid to English composition. More frequent and thorough tests of the pupil's ability to grasp the contents of the printed page and reproduce it independently—not verbatim but in substance—should be made. Seizing readily upon the *meaning* of what he reads, greater individual appropriation of expressed thought should be possible to him and he should be able to give back the same in his own words *well clothed.* This applies not merely to paragraphs but to pages. The blackboard should be in daily requisition for these tests, and set exer-

cises at the seats—the papers to be handed in—should be required. A new phase of the work, laying greater stress upon (first) original composition and (second) the development of power to assimilate what is read and give it back in good English, begins at this point.

UNITED STATES HISTORY.

After three years of biographical reading the pupil now takes up the formal study of United States history, with text-books. Pursue the topical plan. Subordinate minor matters. Make the leading facts stand out in bold relief. A desirable result is obtained if the pupil acquires a love for historical literature. It is better, therefore, to present a few subjects in a clear, strong light than to touch upon many in a way to produce confused impressions. Encourage reading and research, but "leave unlearned, and if possible unmentioned, all numbers and names that cannot be permanently retained." Teach the pupils how to look up subjects and how to use books, but do not lay too much stress upon dates and details. Do away with strictly memoriter work. Consider that recitation a failure in which the pupils do not talk freely. Counter views and cross questions, leading to mutual explanation and correction, should keep up the interest throughout.

COLOR.

Use water color in connection with nature work and ornament.

Analyze color found in fruits, flowers, wall papers and dress goods.

Designs to illustrate dominant, analogous and complementary harmonies.

ARITHMETIC.

Devote no time to problems the difficulty of which and the time required in the solution of which are out of reason. Avoid puzzles. Secure quickness and accuracy in the fundamental processes and in the solution of problems of a practical character and ordinary difficulty. In addition to the regular assignment by months, drill daily in the rapid footing up of ledger columns; also in other rapid work. The use of cards with blanks for name and ten answers is suggested. Let the pupil write one answer a day, and at the end of a fortnight read to him the correct answers for all the ten exercises. These cards may be used, also, for tests in principles and the solution of oral problems. Give out problems like these, allowing on an average one minute each for reading, working (mentally) and writing the answer:

1. I own $\frac{4}{5}$ of a vessel. If my share is worth $15,000, what is the whole vessel worth?
2. If 70 crackers cost 20c, what will 1 cracker cost?
3. How many gills in a gallon?
4. At 80c a gross, what will 36 pencils cost?
5. How many pounds in $\frac{1}{2}$ of $\frac{1}{4}$ of a ton?
6. What will 64 bushels of wheat cost at $.62$\frac{1}{2}$ a bushel?
7. How many square feet in the four walls of a room 30′×20′ and 10′ high?
8. Find $1\frac{1}{2}$ % of $200.
9. What is the interest of $100 for 2 yr. 6 mo. at 6 %?
10. Express decimally $\frac{1}{10}$ %.

September, October.

GEOGRAPHY.

The British Isles.

NATURE STUDY.

(*a*) **Plant Life.**

Study of trees. Distinguish and describe three kinds of maple trees. Examine trunk, bark. Observe arrangement of branches; of leaves. Observe and distinguish the leaves of different kinds of maples. How do the fruits of each differ? Uses of the maples. Where found. Soil. Written summary of observations of maples. Make a class collection of leaf, fruit and wood specimens.

(*b*) **Physics.**

Force continued. Work. Power. Energy. Composition of forces. Equilibrium. Resultant Components. Gifford's Physics, pp. 38–40; 188–189.

U. S. HISTORY.

How Columbus discovered America.
Other Discoveries in America.
Efforts of Sir Walter Raleigh to settle a colony in America.
How Jamestown was settled.
The Starving Time, and what followed.
The Great Charter of Virginia, and the first massacre by the Indians.

NOTE.—Eggleston's headings are employed above (as elsewhere throughout the year), but simply to indicate in a general way the ground to be covered.

GRAMMAR.

Define

Sentence, kinds of (declarative, interrogative, etc.), subject, predicate, noun, common noun, proper noun, pronoun, verb, tense, present tense, interjection.

NOTE.—It is expected that the pupil will be *led up* to these definitions; or, in other words, that they will be reached *inductively*. The statement that he is finally required to memorize should be practically his own statement, de-

rived by him from the illustrations furnished. Such revision of the form as may be necessary should be accomplished in the same way—by the normal *bringing out* of his own thought.

Analyze

Fishes swim.
Storms are brewing.
Animals do reason.
Do birds fly?
Is he sleeping?
Hurrah! we are going.
Speak.
Think.

NOTE.—Use only verbs of the indicative or the imperative mode for the present.

DRAWING.*

*See App. D 11 for correlation of art with geography.

Appearance.

Sheets 1, 2. Drawings of twigs and sprays,—as apple, sweet pea, morning glory (the first, class work).

Sheets 3, 4. Drawings of conical and cylindrical objects,—as vases, pails, bottles, jugs.

NOTE.—Throughout the year the lessons will be individual work unless otherwise stated. Time is allowed for color teaching, directions for which will be given at grade meetings.

ARITHMETIC.

One-step problems in percentage and fractions.

Methods.

A man who had $45 spent 15% of his money. How much money did he spend?	15 % of $45 = money spent.
A man spent $45 which was 15 % of what he had. How much had he?	Let x = what he had. Then $.15x = \$45$.

A man who had $300 spent $45. What % did he spend?	$45 ÷ $300 = part spent. % = hundredths. Carry the division to *hundredths*.
Joseph sold a book at a profit of 1 % and thereby made 5c. What did the book cost?	Let x = what the book cost. Then .01 x = $.05.
¼ of a yard of ribbon cost 42c. What is the price per yard?	Let x = price per yard. Then ¼ x = 42c.
2½ is what part of 3½?	2½ ÷ 3½ = part sought.

NOTE.—In all questions asking what *part* of or what *per cent* of one number another is, the number that follows OF is the DIVISOR.

NOTE.—Use x only in solution of problems requiring to find the base.

November, December.

GEOGRAPHY.

British possessions and British influence in Asia. The way thither—Gibraltar, Malta, Crete, Cyprus, Suez Canal, Aden.

Finish Asia (part not covered by 6th grade).

NATURE STUDY.

(a) Plant Life.

Study of Trees. Observe pitch pine, white pine and spruce. Distinguish and describe. Observe general shape; bark; arrangement, color and shape of leaves; position, shape and arrangement of cones. Uses. Where found. Soil. Class collection of leaves, cones and wood sections. Written summary of observations.

(b) Health Lessons.

The blood and its circulation. How blood is made up. General plan of circulation. Emphasize the need of exercise, which will keep the organs of circulation healthy and the blood pure.

(c) Physics.

Two forces in same line; in opposite directions. Two parallel forces. Gifford's Physics, pp. 41–44; 190–191.

U. S. History.

The Coming of the Pilgrims.
The Coming of the Puritans.
The Coming of the Dutch.
The Settlement of Maryland and the Carolinas.
The Coming of the Quakers and others to the Jerseys and Pennsylvania.
The Settlement of Georgia, and the Coming of the Germans, Irish and French.

Grammar.

Define

Adjective, common adjective, proper adjective, article, definite article, indefinite article, predicate adjective, adverb, adverb of time, adverb of place, adverb of degree, adverb of manner, past tense.

Agreement of *this*, *that*, *these*, *those*.
When to use adjectives, when to use adverbs.
Effect of double negatives.
Analyze sentences containing only parts of speech defined and modifications described; as,

The little waif is sleeping soundly.
Do the forked lightnings flash?
Yesterday the sky was gloriously blue.
That amateur oarsman rows very well.

NOTE —As each new tense is taken up, require the pupils to discriminate. Call attention to the three forms of conjugation, simple, progressive and emphatic.

Drawing.

Appearance.

Sheet 5. Drawing of rectangular object,—as pan, basket.

Sheet 6. Drawing of some article of furniture.
Sheet 7. Drawing of a part of a room.
Sheet 8. Drawing of a group of objects,—as pitcher and glass, basket and fruit, or basket and vegetables.

ARITHMETIC.

Simple interest with difference in time between two dates. Commercial discount and bank discount (to find proceeds). Teach but one method of interest.

January, February.

GEOGRAPHY.

Australia and other British possessions in the Pacific.
Latitude and longitude, parallels and meridians and a general review of mathematical geography as presented in previous grades.

NATURE STUDY.

(*a*) Plant Life.

Study of Trees. Observe hemlock, red cedar and arbor-vitæ. Distinguish and describe. Compare with evergreens studied in November and December. Trunk, bark, branches, leaves and cones. Uses. Where found. Soil. Make a class collection of leaves, cones and wood. Written summary of observations.

(*b*) Health Lessons.

Breathing. Why we breathe. The air-passages. The lungs. How we breathe. Changes in the air from breathing. Ventilation.

(*c*) Physics.

Centre of gravity. Line of direction. Equilibrium of a body supported at one point; of a body resting on its base. Falling bodies. Gifford's Physics, pp. 45–49; 192–194.

U. S. HISTORY.

How the Indians lived.
Early Indian wars.
Traits of War with the Indians.
Life in the Colonial Times.
Farming and Shipping in the Colonies.

GRAMMAR.

Define

Preposition, phrase, prepositional phrase, future tense, simple sentence, compound sentence, conjunction, number, singular number, plural number, appositive, possessive.

Teach use of prepositions *to* and *at*, *in* and *into*, *between* and *among*.

Teach use of *shall* and *will*, *expect* and *suspect*.

Analyze sentences conforming in character to definitions learned; as,

Columbus sailed from Spain, with three small vessels, on the 3d of August, 1492.

In the Middle and Southern colonies the people were very fond of horse-racing, cock-fighting and many other rude sports.

John Rolfe, Pocahontas's husband, succeeded equally with the Indians in the raising of tobacco.

Flocks of pigeons often darkened the sky, and the rivers were alive with water fowl and fish.

DRAWING.

(*a*) **Appearance.**

Sheet 9. Drawing of a group of objects.

Sheet 10. Memory drawing of some object studied.

[During February and March have pupils continue practice in freehand work by making one home sketch each week.]

(*b*) **Construction.**

Write definitions of surface, plane and curved surfaces; plane figure, perimeter, area, polygon. Write names of

polygons, and definitions of triangle, base, altitude, hypothenuse. Write definitions of triangles named from their angles,—right, acute, obtuse; from their sides,—scalene, isosceles, equilateral.

Sheet 1. Trisect a right angle and construct triangles with angles of 90° and 60°; 90° and 45°; with two angles of 60° (class work).

Sheet 2. Erect a perpendicular at the end of a line. Write explanation (class work).

Sheet 3. Construct a square, pentagon, hexagon and octagon (class work).

Teach use of the draughting board, T square and triangles.

ARITHMETIC.

One-step and two-step problems in percentage. The following are classed as two-step problems:

A man bought a horse for $85 and sold him at a profit of 12 %; what did he receive for him?	1 .12 of $85 = what he received.
A man sold a harness for $18, thereby losing 20 %; what did the harness cost?	Let x = cost of harness. Then .80 x = $18.
3 gallons are how many % more than 10 quarts?	3 gallons—10 quarts = 2 quarts. 2 ÷ 10 = % sought.

NOTE.—In all questions asking how many per cent *more than* or *less than* one number another is, the number following THAN is the DIVISOR.

March, April.

GEOGRAPHY.

Physical Africa.

In connection with the Great Desert and Eastern Highlands, take up clouds, winds and rainfall, the cooling of the desert at night, etc.

Mirage.
Peculiar flora and fauna.
Livingstone and Stanley.

NATURE STUDY.

(*a*) **Plant Life.**

Study of the Trees. Distinguish and describe two or three kinds of birches. General shape, bark, catkins, leaves, fruit. Make a class collection of leaves, catkins and wood. Uses. Where found. Soil. Write a summary of observations. Collect maple blossoms as they appear and add to the September collection.

(*b*) **Health Lessons.**

Digestion. Mastication. The teeth. How food is swallowed. Stomach. How the blood feeds upon the food. Purpose and use of food.

(*c*) **Physics.**

Define pendulum, vibration, arc. Cause of vibration. Rate of vibration. Effect of length of arc; of weight of pendulum; of length of pendulum. Uses. Gifford's Physics, pp. 49–52; 194–196.

U. S. HISTORY.

Bond Servants and Slaves in the Colonies.
Laws and Usages in the Colonies.
The Spanish in Florida and the French in Canada.
Colonial Wars with France and Spain.
Braddock's Defeat and the Expulsion of the Acadians.

GRAMMAR.

Define

Object, transitive verb, intransitive verb, voice, active voice, passive voice.

NOTE.—Put columns of verbs like these upon the board and, as a rapid drill exercise, require pupils to tell (1st) the tense and (2d) the voice, if passive.

did	confuses	endeavored
will go	is running	did work
shall be heard	is injured	is done
was struck	was improving	controls
am hurrying	fell	are trying
am hurried	will be wronged	were being told

Analyze sentences like these:

Father Hennepin, a priest, explored the upper Mississippi.

The French laid claim to the whole region west of the Alleghanies.

The settlement of Louisiana was begun in 1699.

Two expeditions were sent against Quebec: the one from New York and Connecticut went by Lakes George and Champlain; the other, from Boston, under Sir William Phipps, was sent in a fleet of thirty-four ships.

DRAWING.

(*a*) Construction.

Sheet 4. Drawing of two views and section of a hollow cylinder (class work). Scale $\frac{1}{4}$ size.

Sheets 5, 6. Drawing of three views of a frustum of a cone cut parallel to its base. Development (class work).

(*b*) Ornament.

Sheets 1, 2. Copy Roman, Byzantine and Romanesque ornaments. Precede these exercises with short talks and the exhibition of photographs.

ARITHMETIC.

Denominate numbers. Review and extend sixth grade work. Be very careful that the problems in brick-laying, plastering, flooring, fencing, papering, carpeting, etc., are not too long or too hard. See that they are entirely practical as well. Take board measure and wood measure.

May, June.

GEOGRAPHY.

British and other foreign possessions in Africa.
Egypt.
Monuments and mythology.
The Nile.
Finish Africa.
Finish Oceania.

NATURE STUDY.

(*a*) **Plant Life.**

Study of the Trees. Observe and distinguish several kinds of oaks. Classify as annuals and biennials. General shape, bark, leaves, fruit. Write a summary of observations. Make a class collection of specimens from these trees. Uses. Where found. Soil.

(*b*) **Animal Life.**

Sponges. Structure. Direction of the fibres. Uses of the fibres. Read on sponge fisheries.

U. S. HISTORY.

Fall of Canada.
Characteristics of the Colonial Wars with the French.
How the Colonies were governed.
Early struggles for Liberty in the Colonies.

GRAMMAR.

Define

Predicate nominative (better called *predicate appositive*), complement of verb, person, personal pronoun, interrogative pronoun, case, nominative case, possessive case, objective case.

The complement of a verb may be what?

Name and decline the personal pronouns—the interrogative pronouns.

Why say, "It is *I*," "It is *he*," etc.?

Analyze sentences like these:

Quebec soon capitulated, and the fate of Canada was sealed.
Who is he?
What say you?
God tempers the wind to the shorn lamb.

DRAWING.*

*See App. D 11 for correlation of art with geography.

(*a*) **Appearance.**

Sheet 11. Drawing of potted plant.
Sheet 12. Sketch flowers with their leaves.

(*b*) **Ornament.**

Sheet 3. Egyptian design in water color.
Sheets 4, 5. Original designs using suggestions obtained from the study of historic ornament and plant forms.

ARITHMETIC.

Find the volume of prisms, cylinders, pyramids and cones; also, the dimensions of same, avoiding, of course, all problems involving the extraction of roots.

Open and close an individual account in single entry bookkeeping.

Eighth Grade.

GENERAL OBSERVATION.

The eighth grade is the solid extension of the seventh, and the directions given in the latter for the correlation of the reading and literature, vocal drills, spelling, the work in English and the treatment of United States history and arithmetic apply with equal force here.

GEOGRAPHY.

Hitherto geography has been a framework, more or less clearly defined, in which the other studies have been set; but in this grade United States history comes to have so large a place as to obscure somewhat this arrangement and, as the central content study, to determine largely the selection, order, time and place of geographical topics. An incidental circumstance in history might awaken a deep interest in some particular section of the country. Thus the rallying cry of "Fifty-four—forty, or fight!" in connection with the negotiations respecting the northwestern frontier, might make it desirable to take up the study of the Puget Sound region. Let the correlation be as close as possible.

The work in geography for the year is the review of the United States, and incidentally the neighboring countries, Canada and Mexico. These have been taken up in the fifth grade upon a physical basis. They are now taken up

more upon an historical basis with special reference to the influence of the great centres, as New York, Boston, etc., upon the life and business of the country and the wider world relations growing out of the same.

LITERATURE.

The life and writings of Irving will be prominent in the reading and literature of the earlier part of the year, and the same of Emerson in the later. There is much in the American addresses of the latter not over hard to understand and calculated to appeal strongly to the imagination and reason of boys and girls of fourteen or thereabouts. Irving's "Sketch Book" and Emerson's "Fortunes of the Republic" will be in the hands of the pupils; also a considerable amount of easier reading matter useful alike for information and for purposes of character training, of which Bolton's "How Success is Won" may be taken as a type.

HEALTH LESSONS.

Make a study of the bones, the muscles, the skin and the nervous system. Emphasize such points as have a practical bearing upon the personal care of health. Teach effects of narcotics and alcohol.

COLOR.

Use water color in connection with nature work and ornament.

ALGEBRA.

One lesson per week as generalized arithmetic and taking the place of arithmetic.

September, October.

GEOGRAPHY.

The Eastern States, from Maine to Georgia, including West Virginia.

New York as the metropolis of the New World.

NATURE STUDY.

(*a*) **Plant Life.**

Observe two or more grasses—habitat, roots, stem, leaves, flowers, fruit. Compare grasses and cereals. Read about sugar-cane and bamboo. Write a paper which shall include the observations as well as facts learned from reading.

Make a special study of the composite family. Learn characteristics of the family and gather and press specimens. How are these flowers fitted for cross-fertilization and dissemination?

(*b*) **Physics.**

Pressure of liquids,—direction of pressure, upon what pressure depends; surface of liquids in communicating vessels. Gifford's Physics, pp. 52–54; 197–198.

U. S. HISTORY.

The Causes of the Revolution.

The Outbreak of the Revolution and Declaration of Independence.

The Battle of Trenton and the Capture of Burgoyne's Army.

The Dark Period of the Revolution.

The Closing Years of the Revolution.

Traits and Incidents of the Revolutionary War.

The Adoption of the Constitution.

The New Republic and its People.

NOTE.—Eggleston's headings are employed above (as elsewhere throughout the year), but only to indicate in a general way the ground to be covered.

GRAMMAR.

Define

Nominative case independent, collective noun, compound predicate.

Analyze

Boston is the capital of Massachusetts and the largest city in New England.

Go home now, John.

Friends, I acknowledge my indebtedness to you.

The committee is small.

The committee are not agreed.

The cowboys rode at a break-neck pace through the streets and fired numerous shots in the air.

Neither Whig nor Tory favored this.

Both father and son have a taste for the decorative arts.

NOTE.—It will, of course, be understood that the above sentences are given simply by way of illustration and that the list is to be greatly extended.

Teach agreement of verb when the subject is a collective noun; when two or more singular subjects are connected by *and*, by *or* or *nor*.

DRAWING.*

*Throughout the year have pupils make collections of good designs,—as book covers, tail pieces,—and of other illustrations by our best artists. These may be obtained from papers and magazines.

(*a*) **Appearance.**

Sheets 1, 2, 3. Drawing of seed pods, vines and branches,—as pea, nasturtium, chestnut.

(*b*) **Ornament.**

Sheets 1, 2. Designs for book covers. Use the above sketches as motives for these designs.

ARITHMETIC.

Partial payments (U. S. rule only) and compound interest. Promissory notes—write, endorse and discuss.

November, December.

GEOGRAPHY.

The States and Provinces embraced in the Mississippi Valley and the St. Lawrence Basin.

Chicago as the metropolis of the Great Central Plain of North America.

NATURE STUDY.

(*a*) **Plant Life.**

Starch, a plant product. Color, form, taste, feeling. Test starch in cold water, in boiling water. Compare with salt and sugar in water. Heat starch in a spoon until brown, then test in water. Test starch in water adding a few drops of iodine. Observe a grain of oats—husk, hull and pulp. Knead some flour in a cloth in a saucer of water. Observe the substance which remains in the cloth. Dry it, what forms? Test cereals and vegetables.

Uses of starch-food, manufactured products such as starching, sizing, gum. Read about sago, tapioca, arrow-root, etc. Write a paper on starch and its uses.

(*b*) **Physics.**

Water-works for cities and towns. Spirit level. Springs and wells. Gifford's Physics, pp. 55–57; 198–199.

U. S. HISTORY.

Home and Society in Washington's Time.
Washington's Presidency, from 1780 to 1797.
Troubles with England and France.—Presidency of John Adams.
Election of Jefferson.—War with Tripoli.
The Settlement of the Great Valley.
Beginning of the Second War with England.
The Navy in the War of 1812.
The Army in the War of 1812.

GRAMMAR.

Define

Participle, participial phrase, present participle, present and perfect participle, past participle, regular verb, irregular verb, principal parts of a verb, present perfect tense, past perfect tense, future perfect tense.

Analyze

Seeing him alone, I entered.

The shipping destroyed in the late gale amounts to several millions.

Having been invited to the party, Eva hurried away in great glee.

He has been a preacher for twenty-five years.

Cold water and cold air are healthy people's tonics, and always will be.

I shall have finished the undertaking before that time.

Give parts of principal irregular verbs.

Teach to use correct forms of *sit*, *set*, *lie*, *lay*, etc., and avoid *done* for *did*, *froze* for *frozen*, *seen* for *saw*, etc.

NOTE.—Put columns of participles upon the board and require pupils to describe them; as, *bringing*, present participle, *having been brought*, present perfect passive participle, etc. Put columns of verbs upon the board and require the pupils to tell (1st) the tense and (2d) the voice, if passive.

DRAWING.

Appearance.

Sheet 4. Sketches of a triangular prism lying on its side and turned at different angles.

Sheet 5. Sketches of a square pyramid turned at various angles.

Sheet 6. Drawing of a rectangular object,—as lunch box with handle.

Sheet 7. Sketches of a cone lying on its side and turned at various angles.

ARITHMETIC.

Insurance, Commission and Brokerage, Stocks and Bonds, Exchange. In general take only the first case of the foregoing or the one involving multiplication. Collect bill heads, blank checks, drafts, notes, bonds and other forms of business paper and explain them to pupils. Review percentage.

January, February.

GEOGRAPHY.

The Pacific and Plateau States and Territories, Texas and Mexico.

San Francisco as the metropolis of the Pacific Coast.

NATURE STUDY.

(a) Minerals.

Marble, limestone, gypsum, calcite, dolomite and chalk. Write a paper describing and comparing these minerals and giving their uses. Read on the formations of chalk and limestone; chalk cliffs of England; Mammoth Cave and Luray Caverns.

(*b*) **Physics.**

Floating and sinking; specific gravity of solids; of liquids. Gifford's Physics, pp. 57–61; 197–200.

U. S. HISTORY.

Expansion of the Union.
From Monroe to Van Buren.—Rise of Whigs and Democrats.
The Steamboat, the Railroad, and the Telegraph.
Annexation of Texas.—Beginning of the Mexican War.
The close of the Mexican War, and the Annexation of New Territory.

GRAMMAR.

Define

Infinitive mode, infinitive, infinitive phrase, subjunctive mode, potential mode, clause, complex sentence.

Analyze

To have been engaged in such a cause is disgraceful.
They wanted to go.
To climb that mountain is to imperil your life.
Charging these impregnable outworks is courting annihilation.
Do you really need to do this?
I may go to-morrow, if you are ready.
Though he comes of a good family and is highly educated, he lacks principle.
I wish that you were better informed upon this subject.
We made for the nearest port, the wind blowing a fearful gale.
Alas! the sun has set, and the night has closed around us.
Can it be possible!
I would not, if I were you, talk so rapidly.

What is the sign of the infinitive mode? When is it omitted?

Teach correct use of *may* and *can*, *would* and *should*.

DRAWING.

(a) Appearance.

Sheet 8. Sketches of a cylinder lying on its side and turned at various angles.
Sheet 9. Drawing of an object to illustrate foregoing principles.
Sheet 10. Drawing of a group of objects.

(b) Construction.

Write definitions of quadrilaterals, trapezium, trapezoid, parallelogram, rhomboid, rhombus, rectangle, square.
Sheet 1. Construct quadrilaterals.
Sheet 2, Working drawing of horizontal square prism resting on vertical square prism. Models at 60° and 30°.
[During February and March have pupils continue practice in freehand work by making one home sketch each week.]

ARITHMETIC.

Ratio and simple proportion to find missing term (first, second, third or fourth), but not to be used for the solution of problems. Taxes.
Open and close an individual account in single entry bookkeeping.

March, April.

GEOGRAPHY.

The Southern States.
New Orleans as the metropolis of the Gulf.

NATURE STUDY.

(*a*) **Plant Life.**

Make a special study of the heath and pulse families. Uses of the members. Press and mount specimens for class collection.

(*b*) **Minerals.**

Distinguish gravel, sand, clay and loam. Observe their arrangement. Collect samples and arrange in boxes for class study. Observe the size of the parts, the shape of the pebbles and grains of sand. What agency rounded, grounded and arranged them? Collect decomposing rocks, observe the formation of sand, rock-flour and clay, and think how soil is formed, also how decaying vegetation fertilizes the soil.

(*c*) **Physics.**

Pressure of air—fact of pressure, directions of pressure, effects of pressure, barometer. Gifford's Physics, pp. 62–64; 201–202.

U. S. HISTORY.

The Question of Slavery in Politics.
Break-up of Old Parties.—Approach of the Civil War.
How the Great Civil War began.
Confederate Victory at Bull Run.—The First Western Campaign.
The War at the East.—From Bull Run to Gettysburg.
Various Operations in 1862 and 1863.

GRAMMAR.

Define

Relative pronoun, compound relative pronoun, antecedent.

Analyze

I have purchased the house that you admired so much.

No one could tell who he was.

Mad are they who fight custom with grammar.

Name and decline the relative pronouns, simple and compound.

Teach agreement of pronouns and correct use of *who* and *whom*, especially in clauses.

DRAWING.

(*a*) **Construction.**

Sheets 3, 4. Working drawings of simple, familiar objects.

(*b*) **Ornament.**

Sheets 3, 4. Copy Saracenic and Gothic ornaments. Precede these exercises with short talks and the exhibition of photographs.

ARITHMETIC.

Involution. Evolution. Extraction of square root. Application to right triangle.

May, June.

GEOGRAPHY.

Standard Time (quite fully) and transcontinental railways.

The United States in the world of art, science, literature and invention (chiefly in connection with reading).

NATURE STUDY.

(*a*) **Plant Life.**

Continue study of the heath and pulse families. Write a paper on each family—members, distinctions, time of blos-

soming, soil, abundance, adaptations to fertilization and dissemination, uses.

(*b*) **Physics.**

Pumps—lifting pump, force pump. Gifford's Physics, pp. 65–70; 202–204.

U. S. HISTORY.

The Campaign between Nashville and Atlanta.
From the Wilderness to Petersburg.—The War in the Valley.
Close of the Civil War.
Traits and Results of the War. Death of Lincoln.
Political Events since the Civil War.
Later Developments of the Country.
Literature and Art in the United States.

[The last four topics chiefly in connection with the reading]

GRAMMAR.

Define

Comparison, positive degree, comparative degree, superlative degree, adjective clause, adverbial clause, noun clause, language, grammar, analysis.

Analyze

They wanted him to keep still.
I cannot believe it to be them.
It is a shame for you to conduct yourself in such a manner.
There is no reason why you should do this.
Mary is stronger and taller than Jane.
This is the largest and finest squash I ever saw.
They now declared that it was time to leave a government which had fallen into the hands of their avowed enemies.

Present summary of cases.

NOTE.—A noun or pronoun is
in the NOMINATIVE case
if used independently or as the subject of a verb in any mode except the infinitive ;

in the POSSESSIVE case
if used as a possessive;
in the OBJECTIVE case
if used as the subject of a verb in the infinitive mode or as the object of a verb or a preposition; and
in the SAME case
as the noun (or pronoun) it serves to explain or identify, if used as an appositive.

DRAWING.

(*a*) **Appearance.**

Sheet 11. Drawing of potted plant.
Sheets 12, 13. Sketch flowers with their leaves.

(*b*] **Ornament.**

Sheets 5, 6. Adaptation of plant life to the decoration of inclosing forms (bisymmetric and balanced arrangements).

ARITHMETIC.

Application (so far as possible) of square root to finding dimensions of all the type solids with which the pupil is familiar.

Teach and apply rule for similar surfaces; for similar solids.

Teach cubes 1, 8, 27, etc. to 1728.

Appendix A.

It was voted by the School Committee August 11, 1896, That the Course of Study for the first five grades, as laid out by the Superintendent, be accepted and that the course for grades 6, 7 and 8 be rejected.

By vote of the Committee April 13, 1897, the course for the last three grades was provisionally adopted.

VI	30	20	20	35	25	15	35	20	45	20	15	20
VII	30	20	35	25	20	10	40	20	45	20	15	20
VIII	25	20	45	25	15	10	40	20	45	20	15	20

If in nature study or drawing three or two lessons per week are given instead of a daily lesson, the time is reduced to ninety minutes per week. The same for history and literature.

During the months in which inventional geometry (outlined under drawing) is taught, thirty minutes per week may be added to the drawing period in grades five to eight inclusive.

The period for composition and grammar is divided, twenty-five minutes for composition (seat work), and the rest for grammar; but various subjects, especially the first four named in the table, afford numerous occasions for informal composition and reproduction (blackboard work), whereby the period for writing may be extended.

Appendix B.

SENTENCE BUILDING.

250 WORDS FOR SEAT WORK.

LIST A (Blue.) See, can, have, I, you, is, it, a, the, yes, no, not, my, has, may, like, to, in.

B. (Green.) This, that, here, there, where, what, will, do, put, please, Mr., an, am, are, were, was.

C. (Salmon.) Doll, kitty, book, slate, nest, nut, pail, basket, box, baby, mamma, papa, birds, tree, mouse, horse, cow, milk, egg, school, dove, dog, cat, rat, pan, hen, chick, rabbit, fish, Willie, Alice, John, Grace, Ned, Tom. your, me, pretty, little, big, white, old, poor, play, fly, run, catch, ride, feed, give, sew, book, wish, eat, get, go, on, for, at, up, and.

D. (Orange.) Boat, squirrel, garden, rose, time, grandma, cap, hat, house, name, kite, ball, boy, ship, water, apple, bite, fun, brother, grandpa, bat, bell, cage, desk, fan, man, top, table, snow, hill, sled, sister, girl. Nell, Minnie, Anna, Frank, Fred. he, his, him, we, us, she, her, they, them, who, one, two, three, four, five, six, some, all, good, dear, glad, red, black, cold, new, get, did, gave, want, think, let, be, been, must, swim, saw, make, coming, going, ran, thank, sail, try, lives, fed, had, hop, jump, spin, too, away, now, with, of.

E. (Rose.)

Leaf, maple, lilac, bush, cherry, geranium, plant, flowers, color. oak, twig, vine, willow, face, grass, lines, veins, ribs, meadow, root, stem, hand, buds, juice, head, green, yellow, glossy, brown, narrow, long, broad, light, short, round, blue, orange, grows.

F. (Yellow.)

Longfellow, Hiawatha, Nokomis, Indian, feather, wigwam, canoe, paddle, cradle, coat, pine-cone, bark, moss, forest. star, sky, sun, east, west, corn, dinner, set, hunt,—circle, cylinder.

List A includes words most used.

B includes additional words much used somewhat later on.

C includes additional words found on first 25 pages of Cyr's Primer and first 19 of Interstate.

D includes additional words found in first half of Cyr and first third of Interstate; also, some recommended by teachers.

E includes additional words found in first half of Normal First.

F includes additional words taken from Hiawatha.

Enough words in list A are furnished to put ten of each, if desired, in each tray; enough of B to put five; enough of C, D, E and F, to pnt two.

Words in lists C and D are printed in the following order: nouns in Cyr, nouns in Interstate; proper names in Cyr, proper names in Interstate; plonouns in Cyr, pronouns in Interstate, and so on.

Added to list A are the punctuation marks, period, comma, interrogation point, exclamation point.

(*Appendix C omitted.*)

Appendix D.

DRAWING.

1

Grades 1, 2 3. (*a*) Flowering plants should be placed in the windows and about the room. (*b*) Bring into the schoolroom vases and similar objects beautiful in form and color. (*c*) Curtains made of artistic, washable material may be drawn in front of blackboards not in use. (*d*) For decoration of wall space reproductions of the following paintings may be suggested: "Aurora" by Guido Reni; Madonnas by Raphael, Murillo and Bodenhausen; children by Sir Joshua Reynolds, Vandyck, and Sir Thomas Lawrence; animals by Landseer, Bonheur, Le Rolle and Schreyer; water colors by Ross Turner and Louis Prang; famous people,—as Washington (Stuart's) and Longfellow.

Grades 4, 5, 6. Follow suggestions given above, adding casts,—as Donatello's "Laughing Boy," and "Singing Boys" by Luca della Robbia; Japanese prints showing excellence of composition and simplicity in coloring; pictures which will help the work in history and geography,—as those concerning the Puritans by Boughton (avoid battle scenes), Niagara Falls, Alpine and Holland scenes, Grand Canal in Venice, Nile and the Pyramids, Giotto's Tower.

Grades 7, 8. Reproductions of ideal heads,— as Hoffmann's Head of Christ; of landscapes,—as Corot's; of rustic life,— as Millet's; of sculpture,—as Michael Angelo's "Moses;" of architecture,—as an interior view of the Alhambra, Ducal Palace (Venice), Temple of Edfou, Erechtheum, Cologne Cathedral, and "Court of Honor," Chicago.

2

Teach these lessons in connection with natural phenomena. Bring out some of the uses of the winds. Review terms of direction and emphasize instruction in neatness and cleanliness given in health lessons.

3

Show photographs relating to the harvest season,—as "The Gleaner" and the "Recall of the Gleaners" by Breton.

4

(*a*) Name objects based on type forms studied which may be used in connection with the Thanksgiving dinner. (*b*) Model and draw pumpkin and ear of corn. (*c*) Paper foldings of table-cloth and salt-cellar. (*d*) Sketch child posing as Indian or Pilgrim. (*e*) Show reproductions of noted historical paintings,—as "Landing of the Pilgrims," "Pilgrims Going to to Church" and "Return of the Mayflower".

5

"Madonna di San Sisto," "Madonna della Sedia," "Madonna del Granduca," Raphael; Madonnas by Murillo, Correggio and Bodenhausen.

6

Use in connection with nature study such pictures as "Odin" by Landseer; "A Norman Sire" by Bonheur; "Shepherdess and Sheep" by Le Rolle; "Cows in a Pasture" by Dupré.

7

Have the pupils represent as many objects as they can, using four sticks, five sticks, six sticks. This work should enable the child to make original forms for seat number work.

8

This work will be more interesting if the illustratrations are the outgrowth of short stories told about the Egyptians and Greeks.

9

The following diagram, taken from Henry T. Bailey's "First Year in Drawing," suggests a fascinating review of the geometric forms in connection with leaf and flower work:

TRIANGULAR.		SQUARE.		OBLONG.		CIRCULAR.	
Leaves	*Flowers*	*Leaves*	*Flowers*	*Leaves*	*Flowers*	*Leaves*	*Flowers*
Sorrel.	Wake-Robin.	Hepatica	Bluet.	Shad-bush.	Violet.	Pyrola.	Hepatica
							Blood-root.
Straw-berry.		Lom-bardy Poplar.	Lilac.			Marsh-Marigold	Colum-bine.
				Marsh-Vetch.			
Black-berry.		Dwarf-cornel.	Dwarf-cornel.			Blood-root.	Marsh-Marigold
							Cinque-foil.

10

Charlotte Yonge's "History of Greece" contains a good picture of Mt. Olympus. Use also photograph of Guido Reni's

"Aurora," Theseum, Erechtheum, and pictures of Greek gods,—as Zeus, Athene and Hera.

11

In connection with the journeys show copies of works of art found in the places visited,—as Bonheur's "Horse Fair," New York; Abbey's and Sargent's paintings, Boston; Westminister Abbey, Elgin Marbles, paintings by Landseer, London; Alhambra, paintings by Murillo, Spain; Notre Dame, Venus de Milo, paintings by Bonheur, Paris; Coliseum, Michael Angelo's "Moses," paintings by Rapahel, Italy; Theseum and Parthenon, Athens; Pyramids and Sphinx, Egypt; St. Sophia, Constantinople; Cathedral at Cologne; "Madonna di San Sisto," Dresden.

12

Show photographs of famous marble statues, cathedrals and other buildings,—as Sophocles, Demosthenes, Milan Cathedral, Giotto's Tower and Leaning Tower of Pisa.

(*Appendix E omitted.*)

Appendix F.

ARITHMETIC.

I

Table-Building, Problems, Picturing, etc. Exercises for first, second and third grades.

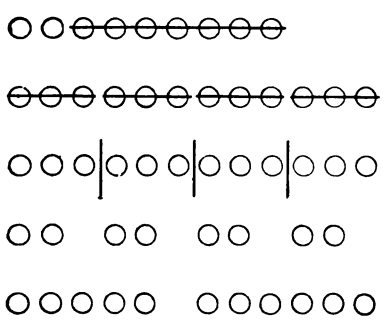
1

TEACHER Puts the following upon the board:	PUPIL Illustrates with counters and splints upon desk top:
3 + 4	○○○ ○○○○
2 × 3	○○○ ○○○
2) 10 (	⊖⊖⊖⊖⊖⊖⊖⊖⊖⊖
½ of 8	○○○○|○○○○
12 — 3	○○○○○○○○○⊖⊖⊖

Or teacher may *dictate* as above and pupil illustrate in the same way.

2

Puts the following upon the board:



Either writes upon paper or makes with table-builders upon desk top:

$9 - 7 = 2$

$3)12(4$

$\frac{1}{4}$ of $12 = 3$

$4 \times 2 = 8$

$5 + 6 = 11$

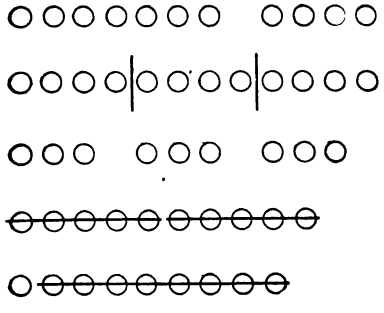
3

Puts upon the board "and", "less", "times", "in" and "of" problems in any order.

Either pictures and states upon paper or illustrates with counters and makes with table builders upon desk-top the equations that correspond.

4

Puts the following upon the board:



About oranges.

Makes up the problems that correspond:

If Mary has 7 oranges and Nellie has 4, how many have they both?

There are 12 oranges on 3 trees, how many is that for each tree? Etc.

5

Puts the following upon the board:

$\frac{1}{2}$ of 10 = 5
3 × 5 = 15
9 − 3 = 6
5)20(4
3 + 8 = 11
About pansies.

Makes up the problems that correspond:

If 2 pansies have ten petals, how many has one pansy?
If one pansy has 5 petals, how many have three pansies?
Nine pansies were growing in a bed and Mary picked three of them. How many were left? Etc.

Be careful in the picturing of problems, not to picture so much as to obscure the numerical relations. In general if the problem is about buying or selling or the the cost of commodities, picture only the money.

Lay the foundations for picturing and take the first steps in first grade by use of blocks and other objects for illustration at number table.

Omit "of" problems in first grade.

II

Fractions and compound numbers for first, second and third grades.

First Grade.

FRACTIONS.

Teach $\frac{1}{2}$, $\frac{1}{4}$ and $\frac{1}{3}$ objectively. Teach $\frac{1}{2}$ of all numbers through nine. Teach $\frac{1}{3}$ of multiples of 3, $\frac{1}{4}$ of multiples of 4, etc., through 9. Teach $\frac{2}{3}$ and $\frac{2}{5}$ of multiples of 3, and $\frac{2}{4}$, $\frac{3}{4}$ and $\frac{4}{4}$ of multiples of 4.

COMPOUND NUMBERS.

Teach linear inch, foot and yard and square inch and foot and draw same. Make cubic inch of clay. Teach 2 pints are 1 quart, 4 quarts are 1 gallon, 3 feet are one yard, 7 days are 1 week, 5 cents are 1 nickel. Teach to measure with yard stick and foot rule.

Second Grade.

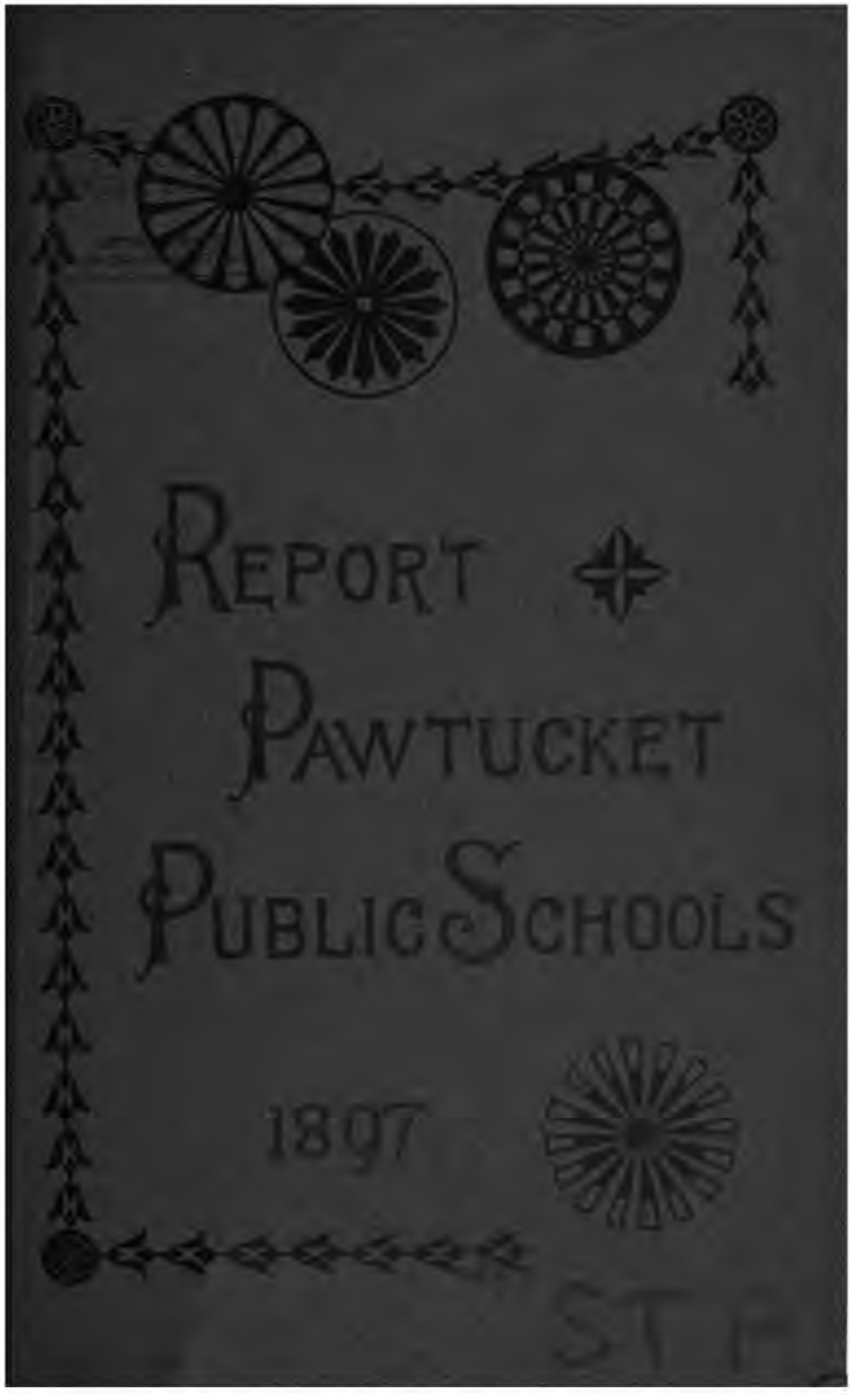
Extend the work of first grade through 20. Find $\frac{2}{8}$, $\frac{3}{8}$, $\frac{4}{8}$, etc., of multiples of 8 and $\frac{2}{6}$, $\frac{3}{6}$, $\frac{4}{6}$, etc., of multiples of 6. Let the objects or the picturing be before the pupils in this work, and do not make it too hard. Time and maturity if allowed to accomplish their work will do much for the pupil in fractions. The work in division proper should include that giving rise to fractional quotients, as 3)13(, 4)15(, etc.

Teach 10 cents are 1 dime, 10 dimes are 1 dollar, etc. Teach 8 quarts are 1 peck, 4 pecks are 1 bushel, 16 ounces are 1 pound, 4 weeks are 1 month, 12 months are one year. Measure by linear and square, liquid and dry measures.

Third Grade.

Teach to illustrate by division of circles, halves, fourths, eights, thirds, sixths, and to find by means of these illustrations the sum and difference of $\frac{1}{2}$ and $\frac{1}{4}$, of $\frac{1}{4}$ and $\frac{1}{8}$, of $\frac{1}{2}$ and $\frac{3}{8}$, etc.; *but do not attempt too much.* See the illustrations for fourth grade. Extend the work of first and second grades.

Combine into tables values learned in first and second grades and commit the same to memory. Put the linear rod upon the board or floor (marking it off into feet) and keep it there. Measure distances in grounds and neighborhood.


REPORT
PAWTUCKET
PUBLIC SCHOOLS
1897



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HIGH SCHOOL.

Duplicate Exchange
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ANNUAL REPORT

OF THE

SCHOOL COMMITTEE

OF THE

CITY OF PAWTUCKET, R. I.,

FOR THE YEAR ENDING JUNE 25,

1897.



PAWTUCKET:
LEE & UPHAM, BOOK AND JOB PRINTERS.
1897.



SCHOOL OFFICERS.

SCHOOL COMMITTEE:

EDWARD W. BLODGETT, *Chairman.*

	Residence.	Term Expires.
EDWARD W. BLODGETT,	71 Park Place, . . .	1898
NATHAN W. LITTLEFIELD,	39 Cottage street, . . .	1898
WILLIAM L. COOP,	1054 Main street, . . .	1898
LOWELL EMERSON,	156 Walcott street, . .	1899
ALONZO E. PIERCE,	117 Mineral Spring avenue, .	1899
SUSAN C. KENYON,	733 Pleasant street, . .	1899
JAMES A. SLATTERY,	Benedict House, . . .	1900
WILLIAM J CRONIN,	108 Conant street, . .	1900
MRS. JOHN JOLLY,	24 South Union street, . .	1900

SUB-COMMITTEES:

Qualifications—LOWELL EMERSON, SUSAN C. KENYON, W. J. CRONIN.

Books—SUSAN C. KENYON, W. L. COOP, MRS. JOHN JOLLY.

Property—A. E. PIERCE, N. W. LITTLEFIELD, J. A. SLATTERY.

Finance—LOWELL EMERSON, W. J. CRONIN, W. L. COOP.

Music and Physical Training—MRS. JOHN JOLLY, E. W. BLODGETT, W. L. COOP.

Promotions and Truancy—W. J. CRONIN, SUSAN C. KENYON, LOWELL EMERSON.

Evening Schools—W. L. COOP, LOWELL EMERSON, J. A. SLATTERY.

Training School and Kindergarten—MRS. JOHN JOLLY, LOWELL EMERSON, W. L. COOP.

High School—J. A. SLATTERY, LOWELL EMERSON, W. L. COOP.

Superintendent of Schools: GILMAN C. FISHER.

Clerk of School Committee: GEORGE E. NICHOLAS.

Residence of Superintendent, 110 Central avenue; Office, Room 3, third floor of Music Hall Building. Office hours from 12 to 12.30, and from 4.30 to 5.30 on school days. Office open daily, except Saturdays, from 8 to 12.30, and from 3.30 to 5.30 *during term time*; also, from 9 to 12.30, and from 3.30 to 5.30 *during vacation.* Clerk of Superintendent, FLORENCE E. DAVIS.

Report of School Committee.

OFFICE OF THE SCHOOL COMMITTEE,
PAWTUCKET, 1897.

TO THE MEMBERS OF THE CITY COUNCIL:

Gentlemen—I beg leave to submit to you the following, not so much in the nature of a report, as of my own personal observations upon school work during five years service upon the board.

And here let me thank the members for their interest in and attention to the needs of the schools and for their efforts in systematizing the detail work of the board. In this latter much has been done the past year. As to the former I personally know that members have given much of their valuable time to personal investigation of the work and needs of scholars and teachers.

As to the teachers, I would say that, in my opinion, there has never been a time in our schools when so high a standard has been maintained and the zeal and enthusiasm which they bring to their work is astonishing.

Much discussion has arisen of late in regard to what is called the "modern system," and much criticism made upon "modern methods." This is natural and to be expected. It is a sign of a healthy interest. We are but the servants of the public, and the public has the right to criticise and condemn. Much of this criticism takes the form of ridicule, always the handiest and often the most formidable weapon. A striking phrase will quickly gain the public ear, and lingering there, make an impression whether founded on fact or fiction. Such a phrase as "bugology," for instance, tickles one's sense of humor and carries with itself an unspoken condemnation of what is termed "nature study." One person can raise up quite a serious row among fathers and mothers by harping upon such a string, carrying the presumption, as it does, that our children are wasting precious hours every day in dissecting bugs, beetles and other disagreeable forms of animal

life, hours which should have been spent in learning how much pork could be bought with a silver dollar, with pork at nine and three-quarter cents a pound, or in acquiring information as to the capital of Tasmania, or how to spell "phthisic," or how to extract the cube root of 762,864 by means of a rule beside which the Eleusinian Mysteries compare as crystal to coal. The proof of the pudding, etc., and the proof of modern methods must be in their results, viz: the relative progress made by our children as compared with ourselves at their age. I hardly think that any one of us would say that twenty or more years ago the schools of Pawtucket began to be as good as the schools of to-day. Those who remember the grammar schools of 1875, and have visited the same institutions of 1897, could not compare the two in discipline, cleanliness and scope of work. Nor in the standing of the pupils either. Where all now run upon one organized system, at that time all were run according to the ideas and oftentimes the whims of the several teachers. If the teacher happened to have a genius for the profession the scholars were fortunate, but if otherwise—well! there was no remedy. Then we took things as they came and without comment. Now the teacher is a target for hundreds of watchful eyes. This is well and as it should be. I well remember an incident that happened in the upper room of the Church Hill Grammar School while I was a pupil there. The teacher, whom the boys always called "Peter," kissed one of the older girls one day before the assembled school, and the girl promptly slapped his facé. This little episode caused no comment then, either in or outside of the school. The teacher remained in the same room for years afterward. Think what would happen now under the same circumstances in these days of an untrammeled press.

Do the boys and girls of to-day receive a better and more practical training than that of thirty, or even twenty years since? That is the main criterion. After all a school does not teach facts, or at least should not make this its aim, so much as to discipline and train the mental faculties. With these trained the mind readily learns all that is necessary to know in busy life. The school should teach us to read, not that we may elocute for the delight

or amazement of our friends, but that we may be induced to take up, enjoy and digest the best books that genius has supplied for us. It should teach us the elements of numbers and their ordinary combinations so thoroughly that these combinations come to our minds as automatically and accurately as the shuttle shoots into the warp. Pausing here I would say that in the second, third and fifth grades, with the work of which I am the better acquainted, this result seems not only to be aimed at, but in a great measure obtained.

It should teach geography, not as an exact science, but as an incident of history, and history, not as a catalogue of celebrated names and achievements, useless lumber for the mind, but as a gradual growth and advance of the world towards a better world, viz: a higher civilization. These things seem to me to be the objects of "modern methods," and while these objects may not be fully or even partially obtained, yet it is certainly well for us to be on the right road. As to the study of "grammar," and here many will disagree with me, but there is here no space for argument, my own opinion is that it is a great waste of time and a source of bewilderment to the scholars. Grammar should only be taught indirectly in connection with other studies, as in the derivation of words and significance of tenses, and not as an exact science capable of being formulated into rules. Grammar can never be learned except by experience in composition, and by the reading of well known standards. As for the use of "good grammar" in speech it can only come from refined associations. We will talk as our neighbors and friends talk, for the imitative faculty is sometimes, alas, the most potential faculty.

Writing should so be taught that one may read what the child has written. No one will deny that this is done, or that the child to-day writes far better than the parent at its age.

Most of the criticism falls, however, upon the "specialties," viz: music, drawing, nature study and gymnastics, and upon the hiring of high salaried supervisors in these branches.

Music supervisors receive $1300 per year.

Drawing supervisors and teachers $1900 per year.

Nature study supervisors nothing.

Gymnastic supervisors $550 per year.

This altogether amounts to $3750. We could get along without these supervisors. They are not absolutely necessary. A home can hardly be found, however, without its organ, piano or some musical instrument, and the public feel very slightly the additional burden of $1300 for music. Music, as a science, seems to be a necessary part of a child's training, and the foundation should be laid by an expert.

What could be more important either in a great industrial community like ours than drawing? Let any critic of this expense call at the evening drawing school and see for himself the very practical nature of what is taught there.

Perhaps "nature study" is the most misunderstood and misrepresented specialty. In fact it is so interwoven with other studies, such as reading, spelling and composition, that in itself it takes up no appreciable time. It is of immense importance in teaching exactness and observation. Nature works by an exact rule, and the child who begins to realize this and to notice this, has learned a great lesson.

Gymnastics might be dropped, but it has its own important place, and to drop it on account of the expense, small as that now is, would be a mistake.

The only point where I would criticise modern methods, so called, is on account of the burden it casts upon the teacher. The teacher of to-day must throw his whole life, soul and body, into his work to keep up with the requirements, more especially the teachers in the lower grades, and the consequence of this is a great drain upon the physical ability. The tremendous nervous strain and the necessary confinement within doors soon tell upon those unequal to its requirements. The reason for this may be found in the fact that many teachers of to-day were not educated to the strain of the present demands, and have got beyond the period in life where a change is possible. This is unfortunate, but under the inexorable law of evolution and the survival of the fittest, this class must go to the wall. On the whole I think we have a remarkably good corps of teachers. I am more familiar with the work done in the lower grades, and in these grades

remarkably fine work is being done. This in time must have an effect upon the higher grades and the High School. The principal of the High School cannot graduate good scholars from imperfectly trained material.

The committee for 1898 will commence work with still better facilities than that of 1897, and with the school buildings in fairly good condition.

I cannot close without a plea for "Manual Training," so thoroughly and ably discussed by the Hon. Pardon E. Tillinghast in a paper read by him the past year. Of all the specialties this is by far the most important. We are far behind England in this respect. In London they not only teach manual training, but also cooking and laundry work! Think of that! We pride ourselves upon our schools. Beware less pride blind us to our defects. We are on the threshold of a new century. Schools that were built for 1800 will not and cannot do for 1900. Nor can teachers of a people that knew not the railroad, the telegraph or the electric motor, do for the child that is looking forward to a future as far in advance of the nineteenth century as the nineteenth was of its predecessor.

Respectfully submitted,

E. W. BLODGETT.

Report of the Superintendent.

Ladies and Gentlemen of the School Committee:

I have the honor to submit herewith my fifth annual report:

STATISTICS.

I.—*Population.*

Population of city, census of 1890,		27,633
State census of 1895,		32,573
Number of children by school census, January, 1897,		6935
In public schools,	4221	
In parochial schools,	1937	
In private schools,	70	
Not in school,	707	

II.—*School Houses.*

Number of school houses,		26
Number of school rooms in school houses,		116
Number of school rooms not in school houses,		2
First ward room,	1	
Fourth ward room,	1	
Number of unoccupied school rooms,		4
Summit street,	1	
Prospect street,	1	
Smithfield avenue,	1	
High street,	1	
Number of sittings,		5093

III.—*Day Schools.*

Number of teachers employed in day schools including assistants (actual number in service at close of year),		132
High School,	12	

Hancock street grammar district,	18	
Church Hill grammar district,	27	
Garden street grammar district,	25	
Grove street grammar district,	24	
Broadway grammar district,	26	
Increase over previous year,		12
Number of assistants employed below the high school,		15
Head assistants for grammar schools,	3	
In primary grades,	7	
In kindergarten,	5	
Number of special teachers (music 1, drawing 2, nature study and penmanship 1, physical training 1),		5
Whole number of pupils enrolled during the year,		5995
Boys,	3051	
Girls,	2944	
Average number belonging,		4026
Increase over previous year,		302
Average daily attendance,		3647
Increase over previous year,		292
Number belonging on last day of school year,		3921
Increase over previous year,		166

Divided by grades as follows:

Kindergarten,	194
1st Grade,	978
2d Grade,	628
3d Grade,	521
4th Grade,	409
5th Grade,	327
6th Grade,	219
7th Grade,	182
8th Grade,	110
9th Grade,	97
High School,	256

IV.—*Evening Schools.*

Number of evening schools,	5

(Evening Drawing, Evening High, Hancock street, Garden street, Broadway.)

Length of each school in evenings,		60, 59, 60, 60, 60
Number of different teachers employed,		35
Males,	21	
Females,	14	
Average number of teachers employed,		33
Number of different pupils enrolled,		633
Boys,	469	
Girls,	164	
Number of pupils over fifteen years of age,		473
Average number of pupils belonging,		323
Average attendance,		255

KINDERGARTEN COTTAGE.

The first kindergarten in Pawtucket was opened in May, 1889, at Cherry street, and was followed three years later by the one at Grove street.

The former came at a time when the kindergarten had not gained much of a foothold in this country except in a few large cities, and it came then not through a charitable association or private enterprise, but by public taxation and initiative.

Last year a kindergarten cottage, wholly planned for and now exclusively devoted to the use of the kindergarten, a unique little structure, was erected in the Cherry street district, at a cost of $6300, including the lot. (The cottage cost $4000, including piano and other furniture, and the lot $2300.)

So far as I know, this is the only public school kindergarten cottage in New England, and it stands to-day as conclusive evidence of the progressive spirit of the people and their willingness to contribute liberally to the support of the schools.

The kindergarten does not teach reading, writing or ciphering; but, taking the child before he is of legal school age, seeks to lead him out pleasantly into "becoming himself by uttering himself," as some one says.

For this purpose it employs as agencies nature study, history and literature, music, art and manual training—that is, the begin-

nings of these subjects; and to-day the highest ideals and aims of the kindergarten are fast becoming those of the primary school, the grammar school, the high school and the university in so far as their adaptation to the work of these higher institutions is possible.

The development of the kindergarten has proceeded without opposition in the city—two more kindergartens having been opened, one at Middle street and one at Garden street, since the first two were established, making four in all. A fifth is greatly needed at Hancock street, and should be opened as soon as possible.

HANCOCK STREET DISTRICT.

This section of the city is placed at a great disadvantage owing to the lack of school accommodations. Grades six, seven, eight and nine are not provided for in the district (except six and seven at Fairlawn). Pupils belonging to these grades overflow into the Church Hill district, driving other pupils out. The crowding at Garden street and the use of the attic at Church Hill have been due to the lack of school accommodations at Hancock street. An eight-room building is needed here to accommodate the kindergarten, the work pupils and the grammar grades as indicated above. This uneven distribution of educational advantages is not only an injustice in itself but works badly for the whole west side of the river. Certainly of no school building erected in recent years has there been greater need than now exists of one in what is designated in the school directory as Grammar District No. 1—this being the district lying mainly west of Conant street and the railroad. Even as a matter of relief for adjoining districts the demand for additional accommodations is imperative and I desire to bring the question of providing the same most urgently to your notice.

THE COURSE OF STUDY.

When a pupil has shown by his daily work that he is qualified for promotion, the passing from one grade to another should be as easy and direct as possible. No formal tests should be instituted. Moreover, the work should be so laid out that in no grade will he

be confronted with unusual conditions of study. The quality of the teaching talent in the successive grades and, for the years of the pupil, the demand made upon his powers should be just the same. With these views in mind I began the preparation of a course of study in March, 1894, and calling to my aid the services of supervisors and teachers and testing it daily in the school-room, completed it at the beginning of the school year for which this report is written. I had abundant material to work from, as both my predecessor, Mr. Maxson, and myself had prepared courses of study by *subjects*, and my work, therefore, was mainly that of editing to interrelate the subjects and make a course of study by *grades*. The long period of time during which it was in progress and under trial in the school-room, taken in connection with the close association of the teachers in the work of preparation, made it to a degree unusual in such outlines the joint production of the whole teaching force. I set out with the expectation of preparing a nine-grade course of study for the grammar and primary schools, but the unnaturalness of such a division became apparent as the work progressed, and, reserving for a later period in arithemetic, a few advanced subjects that needed the relationship of high school branches to be best understood and appreciated, as cube root and the metric system, and in U. S. history, such questions of the tariff and financial legislation as are dark even to mature minds, I ended by submitting an eight-grade course.

Under a misapprehension that the work of four grades had been crowded into the last three, it was voted, August 11, 1896, that the course of study for the first five grades, as laid out by the Superintendent, be accepted, and that the course for grades 6, 7 and 8 be rejected.

A committee upon revision was appointed in September, but made no report, although numerous meetings were held with the teachers of grades, 6, 7 and 8, and the work of investigation extended over a period of several months.

April 13, 1897, it was voted, That the Course of Study for the last three grades be provisionally adopted.

THE INTERRELATION OF GRAMMAR AND HIGH SCHOOLS.

The following letter was sent to all cities and towns of more than 5000 inhabitants in New England and more than 10,000 inhabitants in other parts of the country:

OFFICE OF
SUPERINTENDENT OF SCHOOLS,
PAWTUCKET, R. I., December 28, 1896.

Superintendent of Schools:

Dear Sir—Please to answer the following questions.

Respectfully yours,

GILMAN C. FISHER.

---

1. Is the kindergarten a part of your public school system? If so, at what age do you admit to it?

2. How many kindergartners do you employ?

3. At what age do you admit to first grade?

4. How many grades have you below the high school, not including the kindergarten?

5. What is the length of your high school courses?

6. In what grade (year) do you begin Latin, French, German, algebra geometry, physics?

7. What is the average age of your pupils when they enter the high school?

8. Do you award diplomas to grammar graduates?

9. What is the number of pupils in your high school? What per cent is this of the total number belonging in all your schools?

10. What practical steps for filling up the "gap" between the elementary and secondary schools of your city (if, in your judgment, their articulation is not satisfactory), would you recommend taking, either

(*a*) By changes in the length of the courses;

(*b*) By changes in the time of beginning the studies mentioned in question 6; or

(*c*) By other changes?

The answers to first nine questions are tabulated in the following pages:

NEW ENGLAND STATES.

CITIES AND TOWNS.	No. of kindergartners employed.	Age of admission to kindergarten.	Age of admission to first grade.	No. of grades below high school.	Length of high school courses in years. "C" stands for classical, "S" for scientific, "E" for English, "B" for business or commercial.	GRADE FOR BEGINNING. Latin.	French.	German.	Algebra.	Geometry.	Physics.	Average age of pupils entering high school.	Diplomas awarded to grammar graduates.	Number of pupils in high school.	What per cent of total No. in all schools.	
Adams, Mass	0	....	5	8*	4	9	10	10	9	10	10	14–6	no	118	7¼	*And one year preparatory.
Amherst, Mass	0	....	..	9	4	10	12	12	7	9	12	14–6	no	133	20	
Andover, Mass	2	3	5	9	4	10	11	..	7	7	11	14–6	yes	126	12.6	
Ansonia, Conn	0	....	5	8	4 C 3 S	9	..	11	9	10	12	14	no	76	3.5	
Attleboro, Mass	0	....	5	8	4	8	10	..	9	10	11	14–9	yes	115	7	
Auburn, Me	0	....	5	9	4	10	10	10	9	9	8	14–4	"	320	7	
Augusta, Me	0	....	5	10	5	12	12	13	11	11	12	14–6	"	150	15	
Ayer, Mass	0	....	5	*8–10	3 and 4	9	10	10	9	5	7	14	no	59	12	*Cambridge plan modified.
Bath, Me	0	....	5	9	4	9	11	12	9	11	11	14–6	yes	160	10	
Barre, Mass	0	....	5	9	4	10	12	..	10	11	11	15	no	42	12	
Bangor, Me	0	....	5	9	4	10	11	11	9	..	11	15	yes	330	10	
Belfast, Me	0	....	5	8	4	9	11	11	8	11	9	14	"	121	15	
Beverly, Mass	0	.	5	8	4	9	10	..	8	10	10	13	no	180	10	
Biddeford, Me	0	....	..	....	4	..	..	..	..	..	..	13	yes	156	10	
Boston, Mass	118	3½	5	*9	3 and 4	..	..	..	..	..	8	15–3	"	40–6	5 94	*Admits to Latin Schools from 6th grade upon examination and leaves optional with grammar masters foreign language in the 9th grade. Also has parallel plan.
Brattleboro, Vt	0	....	5	9	4	10	12	11	10	11	..	14	"	120	20	
Bridgeport, Conn	0	....	5	9	4	10	10	12	10	11	..	14 to 15	no	392	5¼	
Bridgewater, Mass	2	4	5	9	4	10	12	..	9	9	9	14–9	yes	87	12.9	
Brockton, Mass	0	....	5	9	4	10	11	13	10	11	12	15–8	"	389	7.03	
Braintree, Mass	5	4	5	8	....	..	..	..	..	..	..	14–7	"	117	10	
Bristol, Conn	7	4	6	10	4	11	13	13	11	13	12	14–3	"	98	6	
Brookline, Mass	20	3	5	9	4	8	7	10	9	9	9	14–9	"	300	10	
Burlington, Vt	2	3	5	9	4	10	12	12	10	13	12	15	no	275	12	
Burrillville, R. I	0	....	5	9	1	..	..	..	10	..	.	14	yes	23	2½	
Canton, Mass	0	...	5	9	3 and 4	10	10	..	9	9	12	13–11	"	68	..	
Cambridge, Mass	17	3½	5	7–9	4 E 5 C	10	11	11	10	8	9	....	"	1050	7	*Parallel plan.

Chicopee, Mass.......	0	....	..	9	4	10	12	..	1	2	3	....	yes	81	4 4-13	
Clinton, Mass.........	0	....	5	9	4 C 3 E 4 S	10	10	10	9	9	8	14-8	"	157	5 1-2	
Concord, Mass........	0	....	5	8	4	7	9	11	8	7	8	14	no	190	22	
Concord, N. H	4	4	5	9	4	9	10	11	8	8	11	15-3	yes	198	9+	
Cranston, R. I........	0	...	5	9	4 C 3 E 1 B	10	.	11	10	11	11	15-1	"	81	5 7-10	
Cumberland, R. I.....	0	....	5	8	4	9	11	..	9	10	10	14	"	80	8	
Danbury, Conn	0	....	5	9	3	10	10	..	10	11	10	15	no	90	....	
Danielsonville, Conn.	0	....	4	9	3 and 4	..	..	..	..	..	..	14	yes	75	21	
Dedham, Mass	..	...	5	9	4	9	..	..	..	9	5	15-1	"	175	13	
Dover, N. H..........	0	....	5	8	4	9	10	11	8	10	9	14-8	"	170	12 1-7	
Everett Mass	0	....	5	9	3 and 4	10	10	10	9	11	8	14-6	"	225	5.77	
Fall River, Mass......	4	4	5	9	4	10	12	11	10	11	9	..	"	577	4.76	
Fitchburg, "	0	....	5	9	4	10	11	12	10	11	11	15-2	no	567	14 5-6	
Gardner, "	0	....	5	9	4	9	11	..	9	5	11	13-6	yes	183	11	
Gloucester, "	0	....	5	9	2 and 4	..	..	..	..	..	..	....	"	370	9	
Grafton. "	0	....	5	8	4	9	11	..	9	10	10	14	no	93	10	
Greenfield, "	0	....	5	9	4	9	12	12	10	11	11	14-6	yes	146	11¼	
Greenwich, Conn.....	2	4	6	9	4	10	..	11	10	11	11	15	no	60	10	
Hartford, Conn.......	40	....	5½	9	4	10	10	10	10	11	11	....	yes	750	11	
Haverhill, Mass.....	0	....	5	9	4	10	12	..	10	11	12	14-10	no	365	—9	
Hingham, Mass.......	0	.. .	..	9	4	10	11	..	8	9	8	14	yes	136	16	
Keene, N. H...... ...	0	....	5	*10	4	11	13	13	10	12	12	15	"	180	16 36	*Cambridge plan in operation.
Lawrence, Mass......	2	4	5	8	4	9	10	10	9	10	10	14-11	"	377	5 58	
Leominster, "	0	....	5	9	3 and 4	9	10	7	..	..	.	....	"	175	12	
Lexington, "	0	....	5	9	4	10	11	12	9	11	11	14-1	"	55	10	
Lowell, "	25	3½	5	9	4	10	11	13	9	11	11	....	"	700	8	
Lynn, "	0	....	..	9	4	10	11	11	9	11	8	15-1	"	807	7	
Manchester, "	0	....	5	9	4	8	.	..	9	11	9	14	no	39	....	
Malden, "	2	3	5	9	4	10	11	12	9	11	11	16	yes	382	9	
Mansfield, "	0	....	5	9	3 and 4	10	12	..	10	11	11	15	"	52	7 1-2	
Malboro, "	0	....	5	9	4	10	12	..	10	11	..	14	"	225	8	
Medford, "	6	4	5	9	4	9	10	10	8	6	4	15	"	350	11.8	
Melrose, "	0	....	5	8	3 and 4	9	9	10	9	8	8	14	"	260	9	
Meriden, Conn........	0	....	5	9	4	10	12	12	10	11	11	14-6	"	256	7	
Middleboro, Mass....	0	...	5	9	4	10	12	..	9	11	9	14	"	153	12.99	
Milton, "	7	4	5	8	4	7	10	9	7	6	8	....	"	132	12.8	
Natick, "	0	...	5	9	4	10	10	10	7	8	11	15	"	240	13	
Naugatuck, Conn.....	0	...	5	8	4	9	10	10	9	11	11	15	no	72	6 1-2	
New Bedford, Mass..	0	...	5	9	4	10	10	10	10	11	10	....	yes	35	5	
New Britain. Conn...	12	4	5	9	4	10	10	10	10	.	11	14-8	no	275	....	
Newburyport, Mass..	0	....	5	9	4	10	11	12	10	11	10	15	yes	198	....	
New Haven, Conn....	24	4	5	8	2 and 3 B 4	9	11	9	9	10	11	13	no	742	5	
New London, "	0	....	5	10	Boys 3, Girls 4	11	12	12	11	12	12	14-7	yes	250	10	
Newport, R. I........	8	3½	5	9	3 B 4	10	11	11	9	11	9	15-9	"	245	9	
North Adams, Mass..	3	4½	5	9	4	9	..	.,	9	..	..	14-6	*	184	7	*Certificates.

NEW ENGLAND STATES—CONTINUED.

CITIES AND TOWNS.	No. of kindergartners employed.	Age of admission to kindergarten.	Age of admission to first grade.	No. of grades below high school.	Length of high school course in years. "C" stands for classical, "S" for scientific, "E" for English, "B" for business or commercial.	GRADE FOR BEGINNING. Latin.	French.	German.	Algebra.	Geometry.	Physics.	Average age of pupils entering high school.	Diplomas awarded to grammar graduates.	Number of pupils in high school.	What per cent of total No. in all schools.	
North Attleboro, Mass	0	....	5	9	4	9	12	..	9	11	11	14	yes	100	7.9	
Northampton, "	2	3	5	9	4	10	10	..	9	11	11	15	no	185	7 1-2	
No. Brookfield, "	0	.	5	9	3 and 4	10	12	..	10	11	12	15	"	63	12	
North Easton, "	2	3	5	9	4	10	12	..	9	11	12	14	yes	103	9 2-3	
Norwalk, Conn	2	3 1-2	5	8	3	9	..	10	9	10	9	15	"	37	10	
Norwich, Conn.....	4	4	6	9	4	10	..	..	..	..	..	14-6	"	300	....	
Peabody, Mass	6	....	5	9	4	10	12	..	10	9	9	14-6	no	135	8 2	
Pittsfield, "	0	....	5	9	4	10	11	11	8	9	9	14-10	yes	258	6	
Plymouth, "	0	....	5	9	4	10	10	10	10	10	10	14	"	175	7.7	
Providence, R. I.....	29	4	5	9	4 E and C 3 B	10	10	10	10	11	11	15-3	no	1533	7	
Provincetown, Mass..	0	....	5	10	4	11	12	12	11	12	12	14	"	58	7 1-2	
Quincy, " ..	0	....	5	8	4	9	10	10	9	10	10	14-6	*yes	373	....	*Do not admit to high school.
Rochester, N. H.....	0	...	5	9	4	10	11	..	10	11	12	....	no	116	11	
Rockland, Me.....	0	....	5	9	4	10	11	..	10	11	13	15	"	113	9.6	
Rockport, Mass.....	0	. .	5	8	4	9	..	..	10	11	12	14-9	"	74	10	
Rutland, Vt.	0	....	5	9	4	10	13	13	10	11	11	15	yes	157	10	
Saco, Me.....	2	4	5	9	4 C 3 E and B	10	10	10	10	10	10	14-6	"	156	15	
Salem, Mass.....	11	3 1-2	5	9	4 C 3 E	9	..	12	9	11	12	15	"	400	10	
Sheffield, Mass.....	0	..	5	8	3	9	..	..	9	10	10	14	no	31	16	
Skowhegan, Me.....	0	...	5	11	4	12	15	..	11	13	13	15-2	"	115	13.87	
Somerville, Mass.....	8	3 1 2	5	9	4	10	10	10	9	9	9	15-3	yes	840	9.6	
Southbridge, "	0	....	5	10	4	11	12	12	10	12	12	14-8	no	86	9 1-6	
Spencer, " . .	0	...	5	9	4 C 3 E	10	12	..	9	11	11	14-6	yes	92	6.3	
Springfield, "	11	*4	5	9	4	10	11	11	10	11	11	15-6	"	500	5 4-5	*When there is room 3 1-2.
Stamford, Conn.....	2	4	4*	9	4	10	..	11	10	11	11	15	no	200	7	*In schools having no kindergarten.
Stockbridge, Mass....	0	....	5	8	4	9	11	..	9	10	11	14-9	yes	45	12 1-2	
Stoneham, "	0	....	5	9	2, 3 and 4	10	10	..	9	11	10	15	"	100	10	

Taunton, Mass.....	0	....	5	9	4	10	11	11	10	11	11	15-3	yes	314	7.6	
Wakefield, "	0	....	5	9	4	8	10	..	9	7	10	14	no	175	...	
Wallingford, Conn....	4	3	5	9	4	10	11	12	9	9	8	16	yes	85	6	
Walpole, Mass.....	0	....	5	8	4	9	11	9	10	10	..	15	no	65	12 1-2	
Waltham "	0	....	5	9	4	9	12	11	10	9	10	15-4	yes	274	9	
Ware, "	0	....	5	8	5	9	11	..	9	11	13	....	no	120	11	
Warren, R. I.....	0	....	5	9	4	9	13	..	10	11	11	14	"	52	9	
Watertown, Mass....	2	3	5	9	4	10	12	9	8	7	9	14	yes	75	15	
Waterville, Me.....	4	5	6	9	4	10	13	13	10	10	11	13-9	no	174	12	
Wellesley, Mass.....	0	....	5	8	4	9	10	10	9	10	..	14-9	yes	73	15	
Westboro, "	0	....	5	9	4	9	12	..	9	11	1	14-9	no	75	9.8	
Westerly, R. I	0	....	5	8	5	9	..	12	10	11	11	15	"	145	10	
Westfield, Mass....	0	....	5	9	2 and 4	10	12	12	10	10	10	15-2	"	165	10.2	
Weymouth, "	0	....	5	9	4	10	12	..	9	9	7	14	yes	254	12 1-6	
Wilbraham, "	0	....	5	9	2 and 4	10	..	..	10	11	10	14	no	14	....	
Williamstown, "	0	....	5	9	4	10	..	11	10	12	12	14	"	65	8 3-10	
Woburn, "	0	....	4 1-2	9	2, 3 and 4	8	11	11	8	8	10	15	yes	261	9	
Woonsocket, R. I ...	0	....	5	9	4	10	12	..	9	11	12	15-4	"	141	4.6	
Worcester, Mass.....	14	3	5	9	4 and 5	10	11	11	10	11	11	14-8*	....	1440	8.9	*Certificates.

MIDDLE ATLANTIC STATES.

Albany, N. Y.....	18	4	5	9	4	10	10	10	9	11	11	15	no	800	7.6	
Allentown, Pa.....	0	....	6	8	3	10	..	10	9	10	11	14	"	325	8	
Altoona, Pa.....	0	....	6	8	4	9	..	10	9	10	11	14	"	330	5 1 20	
Auburn, N. Y	0	....	6	8	4	9	..	12	9	11	10	14-6	"	384	12.2	
Bayonne, N. J.....	..	....	5	8	3	9	..	..	8	10	9	14-6	yes	110	3⅛	
Binghamton, N. Y....	11	4	5	8	4	9	10	9	9	10	11	14	no	546	8 1-2	
Bradford, Pa.....	0	....	6	8	4	9	..	..	9	10	11	14	*	330	11	*Certificates.
Bridgeton, N. J.....	0	...	.	8	4	..	..	..	..	..	..	..	no	160	7	
Buffalo, N. Y.....	*	....	5	9	4	10	10	..	10	11	11	14 to 15	yes	2000	4	*12 kindergartens, supported in part by Association and part by city.
Camden, N. J.....	0	....	5	8	4	..	..	9	5	9	9	15	no	200	2	
Carbondale, Pa.....	0	....	..	8	3 B, 4 C and S	9	11	11	9	11	10	14-6	"	160	8	
Chester, Pa.	0	....	6	9	4	10	11	11	8	9	11	16	yes	127	3 1-2	
Cohoes, N. Y..... ...	4	5	6	9	3	10	10	10	10	11	11	14-7	no	72	4	
Columbia, Pa	0	....	..	11	3	11	..	12	10	12	12	..	"	61	3	
Danville, Va.....	0	...	..	8	3	9	9	9	8	10	9	15	"	110	8 1-2	
Easton, Pa.....	0	....	..	6	4	7	..	..	7	8	7	14 to 15	"	250	10	
Erie, Pa.....	0	....	6	7	4	8	..	..	8	10	10	*15	"	572	8	*Nearly.
Gloversville, N. Y....	4	5	5½	8	3, 4 and 5	9	9	..	9	10	11	14-4	"	230	9	
Hazelton, Pa.....	0	....	..	8	3	9	..	..	9	11	11	15	"	180	5	

MIDDLE ATLANTIC STATES—CONTINUED.

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Hoboken, N. J	0	....	5	10	2 C, 3 E	..	..	7	13	12	12	14	yes	171	2.5	
Hornellsville, N. Y	0	...	5	8	4	9	10	10	9	10	11	14-4	no	300	10	
Huntington, W. Va	0	....	6	8	4	9	..	11	9	11	12	14-9	yes	100	4	
Ithaca, N Y	0	...	5	8	4	9	11	11	9	10	11	15-6	"	438	23.5	*Certificates of promotion.
Jamestown, N. Y	10	5	6	8	4	9	10	8	9	10	11	14 to 15	no	275	8	
Jamestown, Pa	0	....	6	8	4	10	..	..	8	10	11	16	"	80	2 1-2	*Expect to.
Kingston, N. Y	0	...	5	8	4	10	10	10	10	11	12	14-6	"	230	10	*Certificates.
Long Isl'd City, N. Y.	0	....	5	7	3	8	..	..	9	10	11	14-6	yes	170	2.4	
Lynchburg, Va	0	....	7	7	3	7	8	8	7	9	9	15	no	190	12	
Middletown, N. Y	0	....	5	8	4	9	9	9	9	10	11	14	"	140	13	
Newark, N. J	0	....	5	8	2 and 4	9	11	9	9	17	9	14-10	yes	1217	4.3	
New Brunswick, N. J.	0	....	5	8	4	9	..	10	9	10	11	14	"	265	12	
Newburg, N. Y	0	....	5	8	4	9	9	9	9	11	11	13	yes	294	9	
Newcastle, Pa	0	....	6	9	4	10	..	10	10	12	13	..	"	160	6	
New York, N. Y	0	5	5	7½	....	..	..	..	..	..	..	..	"	....	....	
Norristown, Pa	0	...	5	8	4	9	10	10	8	11	..	14	"	275	10.5	
Orange, N. J	0	....	5	8	3 and 4	9	..	10	8	11	9	13 to 14	no	90	4	
Oswego, N. Y	0	....		9	4	10	10	..	10	11	12	16	yes	230	6	
Paterson, N. J	16	5	5	8	4	9	..	..	8	10	10	14	"	450	3¾	
Pittsburg, Pa	36	*	4	8	4	9	..	11	9	10	10	15-2	"	1650	4	*Kindergartens supported in part by Association and part by city.
Plainfield, N. J	3	4	7	9	4	10	11	11	10	13	11	15-6	no	170	7.6	
Pottstown, Pa	0	....	6	8	4	10	..	..	10	11	11	14	"	273	11	
Poughkeepsie, N Y	0	....		8	...	9	..	9	9	11	12	13-7	"	219	7	
Reading, Pa	0	....	6	9	2 and 4	10	..	10	10	11	11	14-8	"	573	5.2	
Rochester, N. Y	13	4	5	9	4	10	..	10	10	11	12	14	*	955	5	*Certificate of graduation.
Rome, N. Y	0	....	5	8	4	9	9	10	9	10	11	14	yes	220	12	

Saratoga Spr'gs, N. Y	10	4	5	9	4	10	11	11	9	11	11	16	no	183	7.8	
Schenectady, N. Y	4	5	6	8	4	9	..	9	10	10	10	15	"	225	8	
Scranton, Pa	0	....	6	9	3 and 4	10	10	10	9	..	..	15	"	473	3 1-2	
Shenandoah, Pa	0	...	..	7	3	9	..	..	8	9	7	14-6	yes	114	4	
Syracuse, N. Y	6	3	..	8	4	9	9	9	9	10	11	15	*no	1268	8	*Certificates.
Trenton, N. J	0	....	5	8	3 C, 4 E	9	..	9	10	11	12	14	"	414	6	
Troy, N. Y	0	....	5	9	4	10	..	10	10	11	12	15 to 17	"	250	4	
Utica, N. Y	14	4	6	9	3 and 4	10	10	10	7	8	12	14-9	yes	400	5 1-2	
Washington, D. C	0	..	6	8	4 C, 2 B	9	.	..	..	..	..	15+	no	....	....	
Watertown, N. Y	0	....	5	9	4	10	10	10	9	11	11	15	yes	250	7	
Wilkesbarre, Pa	0	....	6	8	4	8	9	8	8	9	8	14	"	5 0	8	
Williamsport, Pa	0	....	6	9	4	10	10	10	9	12	12	15	no	250	5 1-2	
Yonkers, N. Y	6	4	5	8	4	9	9	9	9	10	11	14 to 15	yes	242	5.66	
York, Pa	0	....	..	8	4	9	..	10	9	9	12	14-6	no	270	7	

THE CENTRAL STATES.

Akron, O	0	....	6	8	4	9	..	9	9	10	10	15	yes	454	9.1	
Anderson, Ind	0	...	6	8	4	9	..	..	9	10	11	15	no	235	8.03	
Appleton, Wis	0	....	4	8	4	9	..	9	9	11	12	13	*yes	160	8	*In two schools.
Atchison, Kan	0	...	6	8	4	9	..	10	9	11	12	14	yes	89	4 3	
Aurora, Ill	0	....	6	8	4	9	9	..	8	10	12	15	no	270	10	
Battle Creek, Mich	0	...	5	8	4	9	11	11	9	11	12	14	"	345	12.6	
Bay City, Mich	0	....	5	8	4	9	9	9	8	7	6	15	yes	300	7 or 8	*Lab. in 11th.
Beatrice, Neb	0	....	5	8	4	9	..	10	9	10	11	15	no	275	14.7	
Bloomington, Ill	0	....	6	8	4	9	..	10	9	11	11	15	*	300	8	*Certificates.
Canton, O	0	....	6	8	4	9	11	11	9	11	12	14-2	no	332	7.09	
Chicago, Ill	100*	4	6	8	4	7	9	5	8	10	11	14-9	*	8400	4.23	*Certificates.
Chillicothe, O	0	....	6	8	4	9	11	4	8	10	12	14	yes	175	7.6	
Cincinnati, O	0	....	6	8	4	9	9	10	9	10	11	14-7	"	2201	6.3	
Cleveland, O	12	4	6	8	4	9	..	9	9	10	10	..	no	3000	6.3	
Clinton, Iowa	0	....	5	9	4	8	12	10	8	11	12	15	yes	242	7	
Columbus, O	22	5	5	8	4	9	10	9	9	10	11	14-6	"	1840	11	
Council Bluffs, Iowa	0	....	5	8	4	9	9	9	10	10	..	15	no	420	10	
Decatur, Ill	0	....	..	7	4	8	11	10	8	10	10	14-7	*	600	16.8	*Certificates.
Detroit, Mich	0	....	5	8	4	9	11	11	9	11	9	14-6	yes	1445	....	
Dubuque, Iowa	8	5	6	8	4 (2 B)	9	11	9	9	10	11	14-6	"	390	7	
Duluth, Minn	30	4	6	8	4	8	9	9	8	10	11	14	"	531	6	
East Liverpool, O	0	....	6	9	4	11	..	11	9	11	12	15 to 16	no	100	4	
East St. Louis, Ill	0	....	6	8	4	9	..	..	9	10	11	15+	"	105	4.5	
Eauclaire, Wis	0	....	..	8	4	9	..	10	9	11	12	15	"	270	7	
Elgin, Ill	0	....	6	8	4	9	9	9	7	11	11	15	"	200	6	
Elkhart, Ind	0	....	6	8	4	9	..	..	8	10	10	14-6	yes	225	9	

THE CENTRAL STATES—CONTINUED.

CITIES AND TOWNS.	No. of kindergartners employed.	Age of admission to Kindergarten.	Age of admission to first grade.	No. of grades below high school.	Length of high school courses in years. "C" stands for classical, "S" for scientific, "E" for English, "H" for business or commercial.	GRADE FOR BEGINNING. Latin.	French.	German.	Algebra.	Geometry.	Physics.	Average age of pupils entering high school.	Diplomas awarded to grammar graduates.	Number of pupils in high school.	What per cent of total No. in all schools.	
Evansville, Ind.	0	....	6	8	4	9	9	9	9	11	12	13	no	450	8	
Fond du Lac, Wis.	8	4	6	8	4	9	..	11	9	10	12	15	yes	230	...	
Fort Scott, Kan.	0	....	6	8	4	9	..	10	9	10	11	near 14	no	175	8—	
Fort Smith, Ark.	0	....	6	8	4	9	9	9	8	8	11	13–6	"	205	8.9	
Fort Wayne, Ind.	0	....	6	8	4	9	..	..	9	10	10	14–6	"	365	6.5	
Freeport, Ill.	0	....	6	8	4	9	..	..	9	..	11	12 to 13	"	200	10	
Galesburg, Ill.	0	....	6	8	3	9	..	..	8	10	10	ab'ut 15	"	376	12 8	
Hannibal, Mo	0	....	6	8	4	9	..	9	8	11	11	14	yes	170	8	
Hastings, Neb.	0	....	5	8	4	9	..	..	8	11	11	14	*no.	130	9.2	*Promotion cards only.
Indianapolis, Ind.	3	5	6	8	4	9	..	..	9	10	9	14–5	"	777	7¼	
Ishpeming, Mich.	6	5	6	8	4	9	9	9	9	10	12	15	yes	238	10	
Jackson, Mich.	8	5	5	8	4	9	11	11	9	12	7	15	"	275	14	
Jacksonville, Ill.	0	....	6	8	4	9	..	..	9	10	10	13	no	220	10	
Janesville, Wis.	0	....	6	8	4	9	..	..	9	11	12	14+	"	357	15	*At no definite age.
Jeffersonville, Ind.	6	5 1-2	6	8	4	9	..	10	9	10	10	15	"	160	8 to 9	
Joliet, Ill.	0	....	6	8	4	9	..	11	9	10	11	15	yes	309	6	
Kalamazoo, Mich.	0	....	6	8	4	9	9	11	10	12	11	14–4	"	360	10	
Kansas City, Kan.	0	....	7	8	4	9	10	8	9	11	11	15	"	425	5.9	
Kansas City, Mo.	3	6	6	7	4	8	8	8	9	8	8	13 to 15	*	2000	10	*Certificates.
Keokuk, Iowa	0	....	5	8	3 and 4	..	..	..	..	..	..	15	no	243	10—	
Lacrosse, Wis.	8	....		8	4	..	..	1	..	..	5	14–10	"	225	5	
Lafayette, Ind.	0	....	6	8	4	9	..	9	8	10	11	15	yes	271	11	
Lansing, Mich.	0	....	6	8	4	9	11	9	9	11	12	ab'ut 14	no	425	16%	
Lincoln, Neb.	23	5	6	7	4	9	9	9	9	9	11	15	*.	615	12.2	*Certificates.
Logansport, Ind.	0	....	6	8	4	9	..	..	9	11	11	15	yes	275	10	
Madison, Wis.	4	5	6	8	4	9	..	..	9	11	11	15	no	458	18	
Mansfield, O.	2	5	6	8	4	9	..	11	8	8	7	14–9	cer.	250	8	*German is taught in lower grades.
								*11	9	10	11	15				

Massillon O.....	0	....	..	8	3	9	..	12	9	10	10	15	no	141	7.5		
Menominee, Mich....	5	5	6	8	4	9	..	11	8	10	10	14	"	155	6		
Milwaukee, Wis.....	77	4	6	8	4	9	10	9	9	10	10	15-6	yes	1400	4½		
Minneapolis, Minn....	0	....	6	8	4	9	10	10	9	10	11	16-6	no	2400	8—		
Moline, Ill	0	....	6	8	4	9	10	10	9	10	12	14-6	"	253	8.63		
Muncie, Ind.....	0	....	6	8	4	9	..	..	9	10	10	15	"	247	7 9		
Muscatine, Iowa.....	0	....	5	8	4	9	..	11	9	11	11	..	"	162	7		
Muskegon, Mich	10	5	6	7	4	8	10	10	8	10	11	14	"	385	10.4		
Nebraska City, Neb..	0	....	5	8	4	9	12	11	8	8	5	13	"	195	13		
New Albany, Ind.....	0	....	6	8	4	9	..	..	9	11	11	14 to 15	yes	260	9 -		
Newark, O	0	....	3	8	4	9	..	9	9	10	10	14-6	no	219	9.2		
Omaha, Neb.....	25	5	5	8	4	9	..	..	..	..	..	15	yes	1200	14		
Oshkosh, Wis.....	15	4	6	8	4	9	..	9	9	10	..	15	no	200	17		
Ottumwa, Iowa.....	0	....	5	8	4	9	..	11	8	11	11	15	*	215	7		*We call them certificates.
Port Huron, Mich....	0	...	5	8	4	9	11	11	9	11	12	14	no	298	10		
Portsmouth, O.....	0	....	6	8	4	9	..	5	8	8	12	14	"	....	7.7		
Quincy, Ill.....	0	....	6	8	4	9	..	9	9	10	11	15	yes	237	5		
Racine, Wis	13	4	..	9	4	9	..	11	8	11	12	15-6	"	267	6.4		
Richmond, Ind.....	3	4	6	8	4	9	..	9	8	8	10	14	"	326	11.57		
Rockford, Ill.	0	....	6	8	4	9	..	11	9	10	12	14-10	*no	450	9½		*Certificates.
Rock Island, Ill.....	0	....	6	8	4	9	..	9	9	9	10	14	*	230	7.4		*Certificates.
Sandusky, O.....	0	....	6	8	4	9	.	2	9	10	12	14	*	226	8		*Certificates.
Sedalia, Mo.....	0	....	6	8	4	9	..	..	9	11	11	14	"	340	9.4		
Sheboygan, Wis.....	19	4	6	8	4	9	..	11	9	11	12	14	yes	178	5.6		
Sioux City, Iowa.....	6	5	5½	8½	4	9	..	10	9	11	12	14	no	400	8		
South Bend, Ind.....	0	....	6	8	4	9	..	9	9	11	10	14-1	"	269	7.8		
Springfield, Ill.....	0	....	6	8	4	9	.	9	8	10	11	14-8	yes	375	8¾		
Springfield, Mo.....	0	....	6	8	4	9	9	10	8	10	11	14	no	532	11		
Springfield, O.	0	....	6	8	4	9	..	3	9	11	11	15	"	509	8.6		
Stillwater, Minn	0	....	6	8	4	9	11	11	7	8	11	14 to 15	"	175	7		
St. Joseph, Mo.....	0	....	6	8	4	9	9	9	9	10	11	14	yes	450	6		
St. Louis, Mo.	300	6	7	8	4	9	11	9	9	11	10	15-6	"	1800	2 4-7		
Streator, Ill..... ...	0	...	6	8	4	9	..	9	8	10	..	....	*	250	12		*Certificates.
Superior, Wis.....	*29	4	6	8	4	9	..	11	9	10	12	14-6	yes	230	4.4		*And 1 supervisor.
Terre Haute, Ind.....	8	4	6	8	4	9	..	4	9	11	9	15	no	707	11		
Tiffin, O.....	0	...	6	8	4	9	..	*	9	10	11	14	"	243	18		*Through all grades.
Toledo, O.....	0	....	6	8	4	9	9	..	..	..	..	15	yes	700	4 1-8		
Topeka, Kan.....	0	...	7	8	....	9	..	10	8	10	10	15-9	no	456	7½		
West Bay City, Mich.	..	....	.	8	4	9	..	11	9	12	12	15	yes	165	7		
West Des Moines, Ia.	17	5	6	8	4	9	11	9	9	11	12	14-6	*	500	11		*Certificates.
Wichita, Kan.....	0	....	6	8	4	9	..	11	9	10	12	14	yes	350	10		
Winona, Minn.....	7	5	6	8	4	9	9	9	9	11	12	14	no	275	9		
Youngstown, O.....	0	....	6	9	4	10	*	*	10	12	12	14-9	yes	436	14		*Optional.
Zanesville, O	0	....	6	8	4	9	.	9	10	9	10	14	"	330	10		

SOUTHERN STATES.

CITIES AND TOWNS.	No. of kindergartners employed	Age of admission to kindergarten.	Age of admission to first grade.	No. of grades below high school.	Length of high school courses in years. "C" stands for classical, "S" for scientific, "E" for English, "B" for commercial.	GRADE FOR BEGINNING. Latin.	French.	German.	Algebra.	Geometry.	Physics.	Average age of pupils entering high school.	Diplomas awarded to grammar graduates.	Number of pupils in high school.	What per cent of total No. in all schools.	
Asheville, N. C.	0	....	6	7	3	9	..	..	8	7	8	14	no	90	7	
Atlanta, Ga.	0	....	6	8	*3 and 4	9	9	..	9	10	10	13	"	860	6.2	*Girls, 4. Boys, 3.
Augusta, Ga.	8	5	6	7	4	8	8	..	8	9	9	14	"	200	6¾	
Austin, Tex	0	....	7	8	3	9	..	9	8	10	9	15-8	"	164	5.9	
Baltimore, Md.	0	....	..	8	4 and 5	9	9	..	6	8	8	14-6	yes	2488	4	
Charleston, S. C.	0	....	6	8	4	..	..	..	..	..	..	14	no	350	7	
Columbia, S. C	0	....	6	7	3	8	8	..	7	10	10	15	"	98	10	
Columbus, Ga	0	....	6	8	72 weeks.	8	..	..	8	9	9	14	"	100	5	
Covington, Ky.	8	4	4	8	4	9	..	9	9	10	11	14-6	"	200	5	
Dallas, Tex	0	....	7	8	4	8	..	..	8	9	11	14-6	"	241	6¾	
Danville, Va.	0	....	..	8	3	9	9	9	8	10	9	15	"	110	8¼	
Denison, Tex.	0	....	7	7	4	9	..	..	8	10	10	14-5	"	143	8 4-5	
El Paso, Tex.	3	5	7	7	4	8	..	..	8	9	10	15	"	100	10	
Fort Worth, Tex.	0	....	7	7	4	8	..	10	8	10	11	15	*	295	8	*Certificates.
Galveston, Tex.	0	....	7	8	4	9	10	10	9	10	11	14-6	yes	260	6	
Hagerstown, Md.	0	....	6	7	3	7	..	8	6	7	7	15	*	118	....	*Certificates.
Houston, Tex.	0	....	8	7	4	8	..	4	8	7	10	..	*	260	9	*Certificates.
Huntington, W. Va.	0	....	6	8	4	9	..	11	9	11	12	14-8	yes	100	4	
Jackson, Tenn.	0	....	7	8	0	.	..	..	8	..	..	..	"	....	....	
Jacksonville, Fla.	0	....	..	8	4	9	..	..	9	10	11	14	"	100	7	
Lexington, Ky.	5	4	6	8	2	9	..	..	7	10	8	15	no	125	3½	
Louisville, Ky.	0	....	6	8	4	9	..	9	9	10	10	14	"	1295	5	
Lynchburg, Va.	0	....	7	7	3	7	8	8	7	9	9	15	"	190	12	
Macon, Ga	0	....	6	7	3	8	..	..	8	10	..	14	"	350	11	
Memphis, Tenn.	0	....	6	7	4	8	..	..	8	10	10	14	*	330	10	*Certificates.
Mobile, Ala.	0	....	7	7	4	7	..	..	7	8	7	14	no	580	7	
Montgomery, Ala.	0	....	6	8	4	9	11	..	9	10	11	14-6	"	170	8	

Natchez, Miss	..	....	5	8	3	9	..	..	9	11	11	14–6	yes	80	13½	
Paducah, Ky	0	....	6	8	3	9	..	..	8	10	11	14	"	100	4	
Portsmouth, Va	0	....	5	8	1	9	..	..	9	9	9	14	no	62	....	
Richmond, Va	0	....	5	7	2 B and 3	6	9	9	8	9	9	14	yes	1344	11	
San Antonio, Tex	0	....	6	8	3	8	..	3	7	9	10	15–6	*	141	2.1	*Certificates.
Savannah, Ga	0	....	6	7	3	8	..	..	8	9	9	14	yes	366	10	
Vicksburg, Miss	4	5	5	8	....	9	..	..	9	10	9	16	no	121	5	

WESTERN STATES.

Cheyenne, Wy	0	....	6	8	4	9	..	11	9	10	11	14	yes	145	14.6	
Colorado Springs, Col.	0	....	6	8	4	11	..	..	8	8	..	15	n	250	7	
Denver, Col	60	3	6	8	4	9	10	5	7	5	5	14–6	"	1000	10	
Fresno, Cal	0	....	6	8	4	9	..	10	8	8	10	15	yes	165	4	
Helena, Mont	0	....	6	8	4	9	11	11	9	10	12	15	"	1.0	6	
Los Angeles, Cal	70	4½	6	8	4	9	10	10	9	8	11	15–2	"	960	9 1-6	
Ogden, Utah	0	....	6	8	4	9	..	9	8	8	8	15	"	275	6	
Pueblo, Cal	0	....	6	8	4	8	..	10	8	8	10	16–6	no	130	8	
Sacramento Cal	9	4	6	9	3 or 4	10	10	10	10	11	11	15	yes	311	8	
Salt Lake, Utah	0	....	6	8	4	9	10	10	9	11	11	15–9	*	493	4.6	*Certificates.
San Diego, Cal	6	5	6	8	4	9	..	9	8	10	11	14	no	278	10.43	
San Francisco, Cal	0	....	6	9	3	10	4	4	10	9	10	15	yes	1500	4.5	
San Jose, Cal	13	4	6	8	3	9	..	9	9	11	11	15	"	327	10	
Seattle, Wash	0	....	6	8	3 and 4	9	..	10	9	10	11	15–1	no	459	7½	
Spokane, Wash	0	....	6	8	4	9	..	10	9	10	11	15	"	281	8—	
Stockton, Col	0	....	6	8	4	9	11	11	10	11	11	15	yes	230	9	
Tacoma, Wash	0	...	6	8	4	9	..	9	9	10	11	14 to 15	"	475	10	

From a study of these tables it will be seen that of the New England cities and towns responding, 23 have eight grades below the high school, not including the kindergarten; 83 have none, 5 ten, 1 eleven and 4 the Cambridge plan, reducing the length of long courses one or more years for the bright pupils; 42 have a foreign language in ninth grade or earlier, 74 later. In the Middle Atlantic States, 39 have eight grades or less, 18 more; 32 report a foreign language in ninth grade or earlier, 21 later. In the Central States, 4 have seven grades, 88 eight, 1 eight and a half and 4 nine. Two of the cities reporting nine grades, begin Latin, one in the eighth and the other in the ninth. In the Pacific States, 15 have eight grades and 2 nine. These are San Francisco and Sacramento. In the Southern States 14 have seven grades and 20 eight.

The age for entering the high school seems to be but little affected either by the number of grades below the high school or the age for admission to first grade. This in New England and the Middle Atlantic States, except Pennsylvania, is five years. In Pennsylvania, the Central and Pacific States, it is six years, except Iowa, Nebraska and Michigan, where it is five years. In the Southern States it is in general six years.

That the age for entering the high school should vary so little is explained in part by the fact that under an eight-grade plan a higher standard for the eight grades is in general maintained, greater care being exercised in promotions; second, the average age of the pupils of the second grade is not affected much by the admission age of the first grade. In explanation of this, it must be borne in mind that even when they are permitted to place their children in school at the age of five years, parents often prefer to keep them at home until they are six or seven; and, again, grade standards are fairly well defined, and it has come to be widely understood and accepted that there should be about such a degree of attainment for each grade in reading, arithmetic, drawing, etc. Education journals, reports of convention committees and the serials of the publishing houses all contribute to this definiteness of understanding, so that gradually an equalization of grades and requirements is brought about and the pupils of a given grade above the first are about as old in one city as another.

The pupils of Pawtucket average eight years of age when they enter the second grade and over nine, ten, eleven and twelve years when they enter successively the next four grades. The following figures were very carefully taken in the middle of the year. Deducting six months to get the average age at the beginning of the school year and adding six months to get average at the beginning of the next school year, will give figures not very much out of the way:

AVERAGE AGE OF PUPILS.

MARCH 3, 1897.

Grade	2—	8	years,	8	months,	11	days.
"	3—10	"		3	"	20	"
"	4—11	"		3	"	21	"
"	5—12	"		1	"	5	"
"	6—12	"		10	"	10	"
"	7—13	"		6	"	29	"
"	8—14	"		3	"	8	"
"	9—14	"		11	"	28	"
First year high school	—15	years,		11	months,	7	days.
Second " " "	—16	"		9	"	13	"
Junior " " "	—16	"		11	"	18	"
Senior " " "	—18	"		0	"	21	"

DIFFERENCE IN AVERAGE AGE BETWEEN CONSECUTIVE GRADES.

2 and 3,	1 year,	7	months,	9	days.
3 and 4,	1 year,	0	"	1	"
4 and 5,		9	"	15	"
5 and 6,		9	"	5	"
6 and 7,		8	"	19	"
7 and 8,		8	"	9	"
8 and 9,		8	"	20	"
9 and 10,		11	"	9	"
10 and 11,		10	"	6	"
11 and 12,		2	"	5	"
12 and 13,	1 year	1	"	3	"

THE HIGH SCHOOL.

Enrichment shortens the road to the high school, but it is unreasonable to expect that all the reading, arithmetic, grammar and spelling should be completed in the grammar school. I do not wish to be understood as meaning that there should be necessarily distinct classes in the above subjects in the high school, but that reading and voice culture should be considered in connection with every recitation, that certain subjects of advanced arithmetic should be taken up in connection with bookkeeping and other branches of mathematics, that grammar and spelling should receive particular attention in connection with all the translations and the other composition work, that, in short, common school

education, merging into classical, scientific and industrial, should go right on in the high school without a break.

Exclusive devotion to the three R's made the old grammar school of New England top-heavy. We may liken it to the iron-clad built for the United States navy. It had lofty turrets and thick plates of armor, but it was built so heavy and strong that the officers did not dare to go to sea in it; and so, after the first trial, it was declared unfit for service, and has remained ever since doing duty as a receiving ship in a land-locked harbor. A man may be able to parse well and spell well, he may be able to do all the examples in the arithmetic and answer all the map questions in the geography, and yet not be well educated; and so it was with the old grammar schools: Their strength was their weakness; they did good work, but it was scholastic and not practical. The child of to-day may not be able to stand up as long in a spelling match, but he can spell better in writing a letter; he has a wider range of knowledge and a better command over his own powers. In short, he is better educated in that he is better trained and can, with greater facility and aptitude, put to use what he knows in the practical affairs of life. He is relatively better qualified to earn his bread and butter and better qualified to enjoy it when he gets it.

The municipal school system should stand broad-based like a pyramid with the high school as the apex. Let child study be carried up into the upper grammar grades and into the high school as youth study, and be prosecuted there with a view to a closer adaptation of the curriculum to individual needs,—then will the question of the number of grades and the more vital one of allowing the child to go ahead when he is ready to advance, take care of themselves. One grade is just as important and practical as another when the course of study is wisely arranged. There should be no strict line of separation anywhere, and neither the eighth grade nor the ninth grade should be emphasized as a stopping place. The high school is the poor man's school as much as any other, and, carrying on the work of the grammar school in direct line, seeks to give what we call a good English education. This changed character of the high school should, I believe, be brought

prominently before the people at this time. It has ceased to be merely a fitting school for college, and has become in a large inclusive sense a fitting school for life. That it goes right on from where the grammar school leaves off is perhaps due as much to changes in the grades below as to changes within itself. The two courses of study published with last year's report are complements of each other, and make a continuous outline of work, having the same end in view, viz: to give to each pupil the best chance possible to make the most of himself in life. Others might prepare better courses of study, but they could not keep this one thought more carefully in mind.

ADMISSION TO THE HIGH SCHOOL.

March 9, 1897, I recommended that pupils of the eighth grade be allowed to enter the high school if they passed satisfactorily the same examination as that given to the parochial and non-resident pupils. The permission was given and over thirty pupils passed the examination in June. I predict that more honor pupils in proportion will be found among these than among the ninth grade pupils admitted in the regular way upon diplomas. One boy got the following per cents: arithmetic and algebra, 99; geography, 92; language, 96; U. S. history, 92; average, 95. Other boys and girls did nearly as well. What justice would there have been in keeping them another year in the grammar schools? The course of study should be so arranged and the promotions so managed as to prevent a lowering of the grades or a needless retardation on the way. Eight good stiff grades well kept up will bring the pupils to the high school at about the right age and make the conditions for teaching in all the lower grades more favorable. I deprecate formal tests from a central office, but under the circumstances favor for the present a continuation of the eighth grade examination the same as last year. As our courses of study are now arranged a pupil passes from the eighth grade to the high school as naturally as the traveler passes from one car to another in a vestibuled train.

NATURE STUDY.

Nature study has been an object of attack ever since it was in-

troduced four years ago—our genial critics referring to it in terms calculated to turn it into ridicule; but it has held its own in the city and received in the country at large an overwhelming endorsement, having come to be in America what it is in Germany, one of the basal subjects of instruction. I do not think it would be possible to throw it out now over any extended area. It is too much in the nature of an educational foundation and favorite with teachers and pupils, and, when looked into, appeals too strongly to the average mind to be removed.

G. Stanley Hall, in the summer school prospectus of Clark University for this year, says: "Nature study is destined to have a most salutary and profoundly transforming influence upon school work."

VERTICAL WRITING.

Another "fad" that, for its opponents, is showing a vexatious amount of vitality and seems to afford every indication that it has come to stay, is vertical writing.

About 80 per cent. of the pupils in the schools of Massachusetts, it is estimated, are writing vertically. Of the 108 cities and towns of that State of more than 4000 inhabitants, 73 use vertical writing, and 14 do not use it. The remaining 21 I have no report from.

Of the cities of Massachusetts of more than 15,000 inhabitants, the only ones that have not introduced vertical writing are Somerville, Malden and Northampton. Eighteen distinct series or "systems" of vertical copybooks put upon the market by fifteen publishing houses of this country, have fallen under my notice, and there are others.

Cycling in the social world has hardly had a more rapid rise to favor than vertical writing in the educational.

That we made no mistake in introducing it or adopting the D. C. Heath system, I am fully assured. Along with the slant has been swept from the school-room manifold complications in the way of spaced paper and other specialties by which not only the labor limit but the time limit in teaching penmanship was greatly extended.

We now use only paper with ordinary ruling and have carried ink into first grade. Slates are abolished—the last purchases having been made three years ago.

TEMPERANCE INSTRUCTION.

I recommend that scientific temperance instruction in connection with physiology be made a part of the regular school course, and that below the high school an amount of time fully equal to three periods a week of twenty minutes each for fourteen weeks of each school year be devoted to it.

I favor carrying out effectively and fully the *spirit* of the recommendations as contained in the petition of Mrs. Gardner, President of the Pawtucket W. C. T. U., and others, recently presented to you and referred to the Committee on Physical Training, and also the *letter* of the same so far as compatible with our present plan of work. I would question only the wisdom in certain grades of *distributing* the time as recommended. I should not wish to devote less time to the subject in any grade. If the future generation is to be temperate and moral the childdren must be reached. This is woman's position upon this great question and I respect it, and believe in taking hold and supporting her in it. While the influence upon temperance of the *indirect* ethical teaching of our schools may be greatly underrated, as I think it is, I should not wish for this reason to stand in the way of giving to the subject *directly* all the time and attention favored by the W. C. T. U., and I hope that suitable text-books will be provided so that the plan as recommended by this organization can be carried out.

THE TRAINING SCHOOL.

The reorganizing of the Training School has been so recently effected and so thoroughly discussed that I do not need to more than allude to it here. I have said warm words of praise for the Training School in the past and I still believe they were due.

But circumstances alter cases. In face of what the State is now doing for the professional training of teachers, double taxation for this purpose would not be justified.

In my judgment, no mistake has been made in its reorganization, unless it be in not sufficiently limiting the number of pupil teachers to be received into the practice schools of the second year; and if a mistake has been made here, it can be easily rectified in the future.

CHILD STUDY.

Our teachers have taken strong hold of this subject and have made Pawtucket a prominent centre of this form of cult.

Two-thirds of them are organized into round tables connected with the Barnard Club School of Child Study and affiliated with the other round tables of the State that are the offspring of that institution.

Just as in the seating of the school-room only adjustable furniture is now bought, just so in all the teaching of the school-room it is sought to realize to the fullest extent possible the idea of adjustable *furniture of the mind.*

Hence child study becomes a necessity.

In the attempt to fit the work to the child, so that the daily instruction of the schools shall be a continual uplift and re-birth out of which shall come as an incident of the interest excited better language work, better spelling and a better treatment of the three R's—the publisher again comes to the aid of the teacher with judiciously selected reading matter and provides two classes of books that reveal the trend of modern educational effort, viz: Science readers and literature readers. For the best schools are working, as we are working, from two centres of instruction, nature study on the one hand, and history and literature on the other, and by this means securing the unity and interrelation of all the studies pursued.

WORKS OF ART IN THE SCHOOL-ROOMS.

There is hardly a teacher in the city that has not done something to improve the appearance of her room by adding a frieze, cast, vase, picture upon easel or wall, or brightened it by some bit of color imparted by curtain, scarf or table-cover—these articles being in many cases her own private property. Some in the pri-

mary grades have employed natural objects with much effect—grasses and evergreens, or made Hiawatha realistic with tent, bow and arrow, canoe, Indian clothing, accoutrements, doll, etc.; but the most notable improvement below the high school has been effected in the Cherry street school, where the following works of art have been placed in position :

GRADE I.

Sistine Madonna, ... *Raphael.*
Feeding Her Birds, ... *Millet.*
Jerseys, ...
Playmates. (Gift of Miss Eddy, Providence.)
Flower Piece.
Baby Napoleon.
Cast—Singing Boy.
Three Pictures. (Gifts of Miss Kenyon.)

GRADE II.

Madonna della Sedia, ... *Raphael.*
Singing Boys, ... *Luca della Robbia.*
In the Barnyard, ... *Dupre.*
Baby Stuart, ... *Vandyck.*
Giotto's Bell Tower.
Cherry Ripe, ... *Millais.*

GRADE III.

Mme. Le Brun and Child, . . *Mme. Le Brun.*
Shepherdess and Sheep, . . . *H. Le Rolle.*
Landscape. (Pastel.) (Gift of Gen. Olney Arnold.)

GRADE IV.

Aurora, ... *Guido Reni.*
Ploughing, ... *Rosa Bonheur.*
Cast—Singing Boys, . . . *Luca della Robbia.*
Landing of the Pilgrims. (Gift of Gen. Olney Arnold.)

All, except those mentioned in the list as gifts, were procured

with money collected chiefly within the district by the teachers of the school.

IN CONCLUSION.

While outside the school-room the year has not been what could be called educationally a quiet one; inside the school-room the work has gone on undisturbed. I desire to thank you for the steady direction and management and the teachers for the loyal service and support that have made this steady advance possible.

Respectfully submitted,

GILMAN C. FISHER.

August, 1897.

Report of the High School.

Mr. Gilman C. Fisher, Superintendent of Schools:

DEAR SIR—I have the honor to submit to you my report of the high school for the year 1896–97.

The registered attendance for the year just past is 314, an increase of more than 30 over any previous year. Thirty-eight received diplomas at the graduation in June. The first year class was considerably larger than usual, numbering 128.

The occupation of the new building has been a most pleasant experience. Teachers and pupils alike appreciate the change. One of the most potent influences on our lives is the character of our surroundings. Especially is this true in our early years. How important, therefore, that the place where our pupils spend a large part of each day shall be as attractive and wholesome as possible.

The new building was dedicated on the evening of April 30th. The exercises were held in the school hall before a large audience. An interesting and valuable feature in connection with the dedication was the presentation to the school by the Alumni of beautiful works of art and valuable books. Since 1892 every class at its graduation had presented to the school some work of art. The classes who were graduated before 1892 now showed their love and devotion to the school by presenting to it pictures, busts, pieces of statuary, and the works of some of our greatest authors. The class of 1858, the first class sent out by the school, very fittingly presented a large crayon portrait of William E. Tolman, the first principal, who had been the efficient head of the high school for twenty years. Among the gifts presented by other classes, were pictures of the Arch of Triumph, the Acropolis, the Roman Forum, St. Peter's Cathedral, Westminster Abbey; in sculpture, three sections of the Parthenon frieze, a frieze illustrating the march of Alexander by Thorwaldsen, busts of Apollo, Diana, Emerson; in printing, there were reproductions from the Sistine Madonna, the Cherubs, Columbus before the Court of Ferdinand and Isabella, and Columbus before the Council of Salamanca; in literature, there were full sets of Lowell, Holmes, and others, and the Century Dictionary within a handsome revolving case.

There has been considerable irregular attendance the past year caused by illness. As a rule the sickness has not been serious, and I have no doubt that in many cases the parents have been over-solicitous for their children. Headaches have been frequent, and in many cases could be directly traceable to the fact that the pupil came to school without eating any breakfast, and had to go without food until reaching home in the afternoon. In nearly every high school a lunch is provided for the pupils about noon. Such an arrangement is coming to be regarded as absolutely essential to the good health of the student. The plan in Providence and in other cities is to furnish the dishes and engage some one to provide a healthful lunch at the smallest possible cost to the pupil. If we had had some such system the past year, I feel sure that the general health of our pupils would have been better, and much of the irregular attendance would have been avoided. I hope the school committee will take this matter up for consideration in the near future.

The changes in the course of study have worked well. The commercial course has proved popular, and some excellent work is being done. Because of the wise combination of culture studies with the practical, the graduates from this course will not be merely machines, but thinkers, with power to do outside of one narrow channel. At the close of this year, and thereafter, we shall be able to furnish the merchants and manufacturers of the city with bookkeepers, stenographers and typewriters and other office help. We hope those who want such help will bear this in mind, and will give our boys and girls an opportunity to serve them. We shall be glad to confer with any on this matter.

For the past ten years one of the most striking phenomena in the educational field has been the large increase in the number of high school pupils Throughout New England and all other parts of the country where public schools are well supported, we find this increase. The causes are not far to seek. "The increasing popular desire for an education of wider range than that offered by the common schools, and the higher standards of education now recognized by employers of clerks and assistants in all lines of business," as well as the demand for broadminded men in political life, in good part account for this. "By having a college graduate for superintendent and high school graduates for workmen," is the reason given by a large Massachusetts manufacturer why he could pay higher wages and still undersell the manufacturers in Pennsylvania and the West of the same line of goods.

It is from the great middle class of people that the majority of the pupils in our high schools come. They are seeking for their children what has been heretofore possible only for the children of the rich. This enlarged opportunity for all classes is strictly in

accord with the spirit and practice of democratic institutions. In our own school I find that about 75 per cent. of all those enrolled are children of parents who are taxed for less than $5000. Only 12 per cent. are children of parents who pay taxes on more than $10,000. A few years ago a similar investigation was made in the high schools of five representative cities and towns in Massachusetts with practically the same results: 25 per cent. were children of parents who paid only a poll tax, or none at all; 64 per cent. were children of parents taxed for $3000 or less; about 75 per cent. were children of parents taxed for less than $5000; and but 13½ per cent. were children of parents paying a tax on more than $10,000.

I believe the high school should be the centre of the intellectual life of the city, and that the influence of its teaching should be felt widely. I should be glad to see every class in the school open, not only to the alumni of the school who might wish to carry on certain courses of studies not taken in their course for graduation, but also to any mature person in the community who might like to extend his education along the lines pursued by the classes in the school.

The present to the school by the class of '97, at their graduation in June last, was the complete works of Nathaniel Hawthorne.

I wish to thank my fellow teachers for sympathetic counsel, and the school committee and yourself for loyal suppor during the past year.

Respectfully submitted,

WILLIAM WOODSIDE CURTIS.

Report of the Training School.

Mr. Gilman C. Fisher, Superintendent of Schools:

SIR—I have the honor of submitting the following report:

The important changes made in the schools under my care, at the close of last year, were the lengthening of the course of preparation in the normal department, and the raising of the standard of scholarship for admission to it.

As in former years, the students came without the necessary preparation for the work. I was instructed to supplement their academic work so far as possible. This has been done in part, and was to have been continued next year.

They have studied during this year general principles of instruction, and methods of instruction in arithmetic, reading, phonic analysis, language, meteorology, nature study, music, penmanship, form and drawing, and gymnastics. These students have also received instruction in physiology, physical geography, map making, zoölogy, history of education, and psychology.

The management and discipline of schools and kindred topics, have been discussed, and many lessons have been taught for their observation or criticism, and observation of schools has been extended into all the grades.

During the later part of the year, after much observation in the rooms to which they were assigned, the students gradually assumed much of the care of the rooms, during their hours in them, teaching as many classes as they showed ability to take.

Teaching classes was preceded by tutoring two or three children who needed special help.

The young ladies were required to make careful studies of these children, and meet their peculiar needs, if possible.

This work continued for several weeks, to mutual profit and pleasure.

The details of this work can be seen in the journals of the young ladies in which each student accounts for her time.

The attendance is recorded in the register.

This class has not considered grammar grade methods to any extent; that is the work of next year, as planned for this class.

The programme extended to the close of next year, and included a further study of geography, history, zoölogy,

arithmetic, psychology, history of education, the work with the special teacher, and school hygiene, state law, school organization, and teaching in four grades, with continued planning of work for each grade taught.

When I took charge of the school I was instructed to give students as broad a preparation for their work as possible, making them acquainted with the course of study, and giving them the opportunity to practice in five or six grades, if possible.

These requirements have never been changed. Although it has not been possible to realize them, I have understood that I was to shape the policy of the school to realize these conditions as soon as possible, giving the students opportunity to practice in five grades. The extension of the time was necessary. This being done, the present class, judging from their record of this year, would have been the first class, as a class, to meet the requirements.

They have done an excellent year's work.

The Senior class spent one hour each day in discussion of school hygiene, school laws, child study, school organization, and discipline. Those who extended their time to June, continued these discussions, and studied the work of five or six grades—making plans for these grades.

For particulars in regard to their work, you are referred to their journals—now in their possession.

Since I took charge of the school, nearly four years ago, the practice department has been extended into Brook street, Summit street, and Division street schools, and the work has more than doubled. This year thirteen teachers have been engaged in teaching the academic or professional studies, or both, and sixteen teachers have given instruction in practice department.

The grade teachers have accepted these growing responsibilities and added duties cheerfully. They have given their time, strength, and experience to the city without added compensation.

It is seldom that a corps of public school teachers remains so nearly intact for a number of years. This band of teachers *has*—and this is a fact of no little importance, as it has made it possible to plan from year to year upon the experience of the past.

In daily contact with the actual conditions of the school-room, their plans were always practical. Most of them bring experience from former work, more or less extensive. They represent, at least, six different professional schools—not including *this* school, and three seminaries for higher education, in their preparation for the work.

It is true that they have preferred to remain in this school, rather than scatter, going elsewhere into places of less care for the same salary, but it does not change the fact that some of them have given months of extra service to the city.

No one more fully appreciates this than the Principal, who never met refusal to a request to do anything for the school.

It has been the aim of the Principal to hold before the school the importance of personal responsibility in the affairs of life, believing that school discipline should secure such a development of character as will forbid an occupation or course of action that one knows to be detrimental to the community. Instruction should make one clear of mind in these matters; he should know his duty and possibility as an obligation to be met. As Ruskin puts it: "Every child should be measured by its own standard, trained to its own duty, and rewarded by its just praise. It is the effort that deserves praise, not the success." The teachers fully agree with me that

> "It is better youth
> Should strive, through acts uncouth,
> Toward making, than repose on
> Aught found made."

To work upon these principles it is necessary to accord the largest possible liberty to teachers and pupils alike. This freedom is a test to which all cannot at once respond to the best advantage. There can be no uniformity of results, such as are attainable when the products of industry are the goal of the teacher's and pupil's ambition.

We have endeavored to send out pupils and young teachers impressed with the idea that, while individual ability points inexorably to different avenues of usefulness, personal worth may be equally exalted in all. So far as we have been able to impress this fact that personal power and worth depends upon the ruling idea projected through the personality, and that true success comes to those who are willing to pay the price of living with high ideals, we have in that degree followed our ideals for school teaching.

To those teachers of the district who have planned and worked so untiringly for the students and children it must be a source of lasting satisfaction to know that so many who see the result of their labors here, set the seal of approbation upon it in their public testimonial to the worth of the school.

ASSOCIATION FOR CHILD STUDY.

This association has held its regular bi-monthly meetings during the year and one special meeting.

Early in the year the Shattuck Round Table was admitted to it, making the number of round tables six.

The enthusiastic session of the Rhode Island Institute devoted to child study, gave us an impetus, and we began the year with a reception. Several lines of work have been undertaken, the physical aspect of the question receiving considerable attention.

Two addresses have been given by Dr. Hudnut of this city. We hope that other members of the profession will give us the advantage of their valuable suggestions the coming year.

When the Barnard Club called for the results of the year's work in the State, it was found that much more had been accomplished by our round tables tables than was supposed.

Several papers were sent to the State committee on child study.

To quote from the annual report of the Secretary of the Assotion:

"We feel that much of the most valuable and practical work is not contained in these papers. The visits to the homes, made by many of the teachers, thereby bringing the home and school into closer relation; the cases of defective sight and hearing, or of mouth breathing, which have been detected and remedied; the mutual acquaintance and sympathy among the members which have been the outgrowth of the study; the questioning of methods and means of developing individual life rather than classes of pupils, are among the most satisfactory results of this, our first year of child study. We look forward to a year of stronger and better work."

The child study movement has resulted in at least nine State organizations, forty city organizations, and several hundred others encouraging child study. It has promoted increased attention to the individual, a closer sympathy between parents and teachers, and a more active interest on the part of the public in all that pertains to the well being of the schools.

It is rescuing the misunderstood child—giving skilled assistance to the defective, and demanding for every child the full development of his original powers, that he may be sent into active life able to do something.

The whole movement is essentially American. Dr. G. Stanley Hall said in a recent lecture: "It is putting into the teacher's hands a master key to interpret problematical character. I cannot but feel that the best of all the results of child study will be a kind of renaissance of childhood in the world again,—that we shall put a true value on intuitive methods, and that the world will come to consider that childhood is born again, and feel again the meaning of 'Unto us a child is born!'"

I earnestly hope that the work so well begun will continue and enlarge, and that mothers' meetings and an association of the parents will conserve the growing interest in this community.

My connection with the Association has been one of unmixed pleasure. I wish I could have done more in recognition of the honor conferred upon me as President of the Association.

In closing this report I do so, deeply grateful for the loyal support and friendly service which has been mine, given by friends,

young and old, throughout the city. They share my successes—my failures are my own. I am also keenly sensible of the approval set upon my efforts in the testimonials from those who know my work in the city and State.

Respectfully submitted,

MARY L. P. SHATTUCK,

Principal.

Report of the Supervisor of Music.

Gilman C. Fisher, Superintendent of Schools:

DEAR SIR—In presenting my annual report for 1896–7, I would say that the schools are in as good condition as they have been in the past, and in some respects better. The high school is in better condition than ever, having a new building, with a fine hall for singing, and a new grand piano, which proves to be a fine toned one and in every way satisfactory. The pupils are much more interested in their work (more especially the boys) since occupying the new hall. The music for the graduating exercises held in the high school building, in the afternoon of June 23, was very well rendered, calling forth many very flattering remarks from the audience, and also from members of the School Board. The same might be said in regard to the exercises at the dedication of the building. Miss Jennie McKinley has been of very great assistance to us in presiding at the piano and playing our accompaniments at rehearsals and on public occasions, which we all appreciate. The pupils that have assisted us with their orchestra are entitled to much praise. The grammar schools acquitted themselves finely, and gave very satisfactory music at their graduation, and also the orchestra that was made up from the lower grades. I wish to thank the grammar teachers for their very kind assistance. They have taken a great deal of pride in the music and done all they could to help me on all occasions when they were needed. The lower grades are working along splendidly. All the teachers take interest in their work, and do all they can to keep up the music which, without their co-operation and assistance, would be a failure, and I wish to thank them all. There is good music in the music readers and also drill work, but supplementary work, such as is found in codas (which come in very cheap form) gives enthusiasm to the pupils, and also the teacher. I would recommend to the School Board that a sum of money be appropriated for the purpose of supplying the upper grades and high school when needed. Music to my mind is not a fad, as some term it, but is of great importance to the pupils, being the first thing that is called for on all public occasions. Pupils must be

taught to sing in order to gratify the wishes of the people. I think that our City Council and taxpayers will be willing to grant all the money that is necessary for music in the public schools. In conclusion, allow me to thank you for assistance on all occasions.

Respectfully submitted,

ALBERT C. WHITE.

Report of the Supervisor of Drawing.

Mr. Gilman C. Fisher, Superintendent of Schools:



SUBMITTING this, my first annual report as Supervisor of Drawing in the schools of Pawtucket, I aim to show something of what has been accomplished in art and industrial education during the past year.

In making out my course of study I endeavored to keep in mind that, in a city like ours, the industrial part of the work should have a very prominent place. During the fall and spring months, therefore, the programs called for designs based upon arrangements and drawings from nature. These designs took the form of book covers, initial letters, decoration of surfaces and patterns for oil cloths, wall papers, etc. These were executed in pencil, ink and color. In this, we soon came to the conclusion reached in many other cities, that this branch of the work could in many cases be better carried out by the use of the brush than with the pencil, and the result of our brush work last spring was very gratifying. The cover of this report was designed and drawn by Miss Martha F. Preston of the high school in connection with her study of Egyptian ornament. The initial letter was designed by Lester Hornby, grade VIII. The tail piece is the work of Lillian Robinson of grade VII. All these designs were executed as a part of the regular drawing course and were *not* specially prepared for this report. While thus emphasizing the practical, the value of imaginative drawing, especially with the little children, has not been overlooked, but has been encouraged in connection with the work in language, and no question of theory or technique was allowed to interfere with free expression. It is not expected that by this means we shall make original artists of all the children, but it may enable them to understand, when older, the conceptions of great artists, and thus receive more enjoyment and inspiration from their works. A due amount of clay modeling, stick laying,

folding, cutting and pasting has also been taken in the lowest grades in connection with the study of form.

Freehand drawing has been carried on throughout the year in all the grades that the pupils may learn thoroughly the underlying principles of perspective. New principles were added in each grade in regular order.

Feeling that our city, with its varied manufactures, needs and justly demands much in the line of the constructive and mechanic arts, I have placed in our program a very strong course of mechanical and architectural drawing. Beginning with the draughting board and T square in the sixth grade, we should graduate pupils, at the close of their grammar school course, able to read and make any simple working drawing. For those students who wish to carry their studies farther along this line the new industrial course in the high school affords an opportunity. This course is designed to meet the needs of those young men who intend to enter the draughting room or to engage in any line of work where drawing is of special value. Thirty students elected this course during the past year.

The opening of the new drawing room at the high school marks an era in our work. The room is well lighted and is fitted with individual tables. On the walls are hung casts and photographs representing the development of architecture and ornament through the centuries. This fall several pictures which have been purchased by the pupils will be added to the collection. Thanks to our alumni a beginning has been made in the decoration of the hall, library and various classrooms. At the time of the dedication of the high school building every class since 1858 presented some work of art to its alma mater.

School room decoration is becoming more and more a factor in education. Teachers are beginning to wish for better pictures and casts, and to ask for advice in the matter of selection. In this the age of the pupils and a natural sequence of thought from grade to grade must be kept in mind. Experience shows that little children prefer pictures containing some human element, that pictures of animals come next, while landscapes, etc., are the last to be chosen. Such examples of architecture, sculpture and ornament as best illustrate the course of study in each grade and correlating with geography and history could be used to advantage. This fall it is my intention to put into the hands of our teachers a list of pictures and casts from which selections suitable for each grade can be made as circumstances allow. A very good plan, where economy is necessary, would be to expend a few dollars for good photos and casts, a sufficient number to allow the placing of one piece in each school building. Each subject could then be passed from one grade to another throughout the

city until at the close of the year it could be placed permanently in some school building. In this way every school would have the advantage of each art work secured. This plan has been tried in other cities with success and secures, it seems to me, the largest returns from a small investment. However, this is not a matter for immediate consideration, but in the way suggested a beginning might be made in the study of art, which is coming to be recognized as equally important with the study of literature for general culture. One can hardly overestimate the pleasure and profit children receive from these works of art, representing as they do subjects which inspire the mind and touch the heart.

The study of historic ornament has been taken up in all the grades and also in the high school. The history of ornament and architecture is the history of the human race, and in the different characteristic styles even little children may be led to read much of the history of mankind. To follow the development of these subjects through the centuries is a most interesting study, especially at the present time when in every large city we find new buildings erected in many different styles and oftentimes showing several kinds of ornament on the same building.

Owing to several new features in the drawing course it has been necessary to call a large number of teachers' meetings. The teachers responded cheerfully and have prepared themselves to such an extent that the number of meetings can be reduced at least one-half during the coming year.

Every school in the city has been visited once in three or four weeks by Miss Robinson or myself, and instruction has been given to the pupils that the teachers might see the practical as well as the theoretical side of the work. Every two months samples of the *every day* work of *every pupil in the city* have been sent to the office and carefully examined by me. Some specimens have been placed on the wall in the committee room from time to time, where it could be examined by those teachers and pupils who were interested in the work of others. My classes at the high school required my presence there every day during the school session. In the afternoon my attention was given to the grades below. In the high school there are over two hundred pupils taking drawing from one to five times a week. In the grades ninety minutes a week are required, divided into periods of from fifteen minutes each in the lowest to forty-five minutes in the highest grades.

Miss Robinson, the Assistant Director, has confined her attention and teaching to the five lower grades, and the high standard of the work in these grades proves that the committee made no mistake in their choice of an assistant. By her personality and her love for the work she was able, from the first, to make her efforts felt among teachers and pupils alike.

I thank you and the members of the School Board for the help and support received during the year, and also take this opportunity to extend my thanks to my fellow teachers for their hearty co-operation and earnest endeavors.

Respectfully submitted,

WILLIAM A. NEWELL.





KINDERGARTEN COTTAGE.

REPORT OF THE

Supervisor of Nature Study and Penmanship.

Mr. Gilman C. Fisher, Superintendent of Schools:

DEAR SIR—I submit herewith the report of my two departments:

I.

NATURE STUDY.

Much stress has been laid upon language in connection with nature study during the year. As a centre from which to draw, the study of nature has provided the interesting matter about which the children are able to write. At the same time a keener appreciation for nature, as expressed in the best literature, has been developed. The children seem to be wide awake to the great variety of material nature offers at each season, and hail with joy each change because of the ever interesting study. This is shown by the natural history charts to be found in the school-rooms; by the weather records; by the conversation of the children; and by the language work.

There is much eagerness on the part of the children to know the habits and characteristics of the animal and bird life to be found in the woods and fields of Pawtucket, and much has been done in this direction. More could be done if stuffed specimens were available for more accurate teaching.

One ninth grade class has done very good work in physiography since March. They had become interested in the mineral study of the winter months and so continued it into the remaining months of the year. Field excursions have been made and records have been kept. These pupils not only have learned much about the surface conditions of Pawtucket, but through this study are better able to understand descriptions of scenery which they have not seen, and to appreciate travel through other sections of country.

Another class has made interesting observations of birds, and are able to describe the homes and habits of several. Boys who

are led to value these useful little creatures become humane because of their knowledge.

Children who are led to see the beauties of nature in their surroundings; who can name the flowers at their feet and the trees that offer them shade; who can call the names of the birds and know through personal observation something of the habits of the living creatures in field and wood, will not only be able to appreciate the literature of master minds, but will be true lovers of country, especially loyal to the home where they learned to know God's creations and where they began to understand a little of nature's wise economies.

II.

PENMANSHIP.

The natural system of vertical writing has been employed in all grades below the high school. A marked improvement in the writing of entire classes is a result. Pupils who were good slant writers are good vertical writers, while pupils who were only average or poor writers, have become able to write legibly and well. There is a noticeable neatness and legibility in all class work—that is, not only do the pupils write well in the writing lesson but in all lessons which require writing. This has been exemplified in the papers which have been exhibited at the office of the school committee every fortnight during the year.

I would like to repeat my suggestion of last year,—that the pen be used more and the pencil less, in grades above the third.

Respectfully submitted,

JULIA M. TALBOT.

REPORT OF

The Supervisor of Physical Training.

Gilman C. Fisher, Superintendent of Schools:

SIR—I have the honor to submit the fifth annual report of the work in Physical Training.

This year, Wednesday and Friday of each week, I have been at the high school from 8.15 to 12.50, the regular school session, then returned in the afternoon for the young ladies of the training school.

This has left Monday, Tuesday and Thursday for visiting the schools below the high school.

We have followed up the adjustment of desks and chairs to the pupils which was begun early in the gymnastic work. There are still a few rooms where adjustable desks are needed.

By asking the teachers to put the temperature of the room on the blackboard in some conspicuous place at 9.30, 10.30, 2 and 3 o'clock, we have brought in some thermometers from the outside, and secured a more even temperature than formerly. The janitors have willingly assisted in this matter. When in glancing into a room the record has indicated over 72°, some means of lowering it has been sought.

Dr. Burnham of Clark University, an authority on school hygiene, quotes experiments to prove that too high a temperature in the school room is a more serious matter than has been supposed.

He speaks also of the contamination of the air by decayed teeth. It would, at first thought, hardly seem to be the province of the teacher to see that her pupils have their teeth properly filled; and yet, if the parents are careless of the matter, and it threatens ill health to the other pupils and herself, she may mildly suggest that if the child's teeth are now cared for, they will be much less trouble to him in later life.

I have been very much pleased to know that many of the teachers are as particular in regard to the manner in which the pupils stand to recite as they are in their gymnastic exercises.

By the use of the spirometer I have found that a large majority of the pupils in the high school have gained 10 cubic inches in lung capacity during the year.

On Wednesdays the high school girls have come to the gymnasium in five sections. On Fridays the boys have come in the same manner. This unhappy arrangement of each pupil working but once per week has prevented getting the best results from our time. It is evident to all that by working for 50 minutes and then doing nothing in that line for a whole week, if the pupils had been worked up to their utmost capacity the whole "hour," lame muscles would have been the order of the day. Whereas if they had had an opportunity to exercise in a day or two, the uncomfortable effects would soon have been overcome. I would earnestly urge the necessity of providing some suitable receptacle for the suits, or, at least, the shoes. It is not desirable to keep them in the desks upstairs or to carry them home. This being the first year of introducing gymnasium work into the high school, I have been very much gratified by the interest and enthusiasm manifested by the pupils. Great credit is due the parents for so promptly providing the girls with the proper suits and rubber shoes.

At Broadway the ninth grade has made the most of its limited quarters in the attic gymnasium—fitted up by the combined efforts of the principal and pupils. Mr. Jones with the boys, and Miss Reed with the girls, have demonstrated beyond a doubt the feasibility of gymnasium work in the upper grammar grades.

Among the pupils I find that the ability for more exact execution of commands is constantly increasing. A marked steadiness of movement is to be observed in the exercises which are constantly increasing in complexity.

I wish to commend the conscientious, intelligent use of the gymnastic time in all of the grades, and to thank the grade teachers for their uniform kindness, hearty coöperation, and faithful drill, without which no special teacher could accomplish anything.

Until the close of the class work the seniors of the training school met at the gymnasium Friday afternoon for an hour. Their gymnasium work of last year was continued. They reviewed the work of last year in the theory of Swedish gymnastics, and devoted a good share of their time to teaching. I also observed their work in the school room with the children of the various grades.

The juniors met on Wednesday and Friday afternoons. As this was their first acquaintance with Swedish gymnastics, they were made familiar with the fundamental positions, movements, etc., by actually doing them themselves. They also had ten minutes per day under the care of the seniors. The last half of the year

has been devoted to teaching the study of theory and games. I wish to express my appreciation of the cheerful manner in which my requirements have always been met by both classes.

Thanking yourself and the members of the school committee for all kindness shown me, I respectfully submit the above report.

S. MAY TAYLOR.

Report of the Evening High School.

Gilman C. Fisher, Superintendent of Schools:

DEAR SIR—I hereby present the annual report of the Evening High School.

Owing to the political excitement attendant npon the national election the opening of the school was delayed till November 2; the term continued the full twenty weeks. The total number enrolled was one hundred and eighteen; the average attendance was seventy-five; the percentage of attendance sixty-three. The falling off indicated by the above only confirms the opinion expressed in a previous report, namely, the advisability of adopting some plan to enforce continued and regular attendance on the part of each pupil. The plan suggested in last year's report could be easily adopted and would be efficacious. The enrollment ought to be restricted closely to those whose intention is to pursue the course faithfully to the close of the term. Some other plan not attended with any hardship at all to the pupil might do as well. It would be well for the committee to look into the matter thoroughly.

Two classes in stenography and typewriting were formed and made excellent progress. On account of the fact that but ten typewriting machines were at our disposal, the number of pupils taking the course was small. In one respect this was an advantage, as it was necessary to limit the classes to those pupils who had been in the school previous years and had demonstrated their ability to do the work in an acceptable and creditable way. At the close of the term several could take dictation at a reasonably rapid rate.

A modern system of bookkeeping was substituted for the old wooden method, which, together with a good drill in actual banking, was of great profit. The classes were discouragingly small; they should have been three times as large, considering the drill that was obtained. I can attribute the lack of numbers only to the fact that the young men and women in the city who would have liked such a course were not aware of the opportunity offered. However, the good work done should bring a large number into the bookkeeping classes the coming year.

The latter part of the term Mr. J. R. MacColl was asked to speak to the school, from the standpoint of a business man, of the practical benefits derived from an education such as can be gained in the evening schools. He kindly consented, and together with Mr. Coop of the committee and Mr. Superintendent Fisher, who made stirring addresses, aroused the enthusiasm of the pupils to a degree. This plan of having practical business men address the school was suggested to Mr. Coop. It should be begun early in the term and continued monthly.

As never before, we were favored with frequent visits from members of the evening school committee.

Thanking you for your ready assistance, I am

Very truly,

H. H. HASTINGS,

Principal.

Report of the Evening Drawing School.

Mr. Gilman C. Fisher.

DEAR SIR—Drawing is the basis of all mechanical work, and people are coming to realize more and more its great importance. They find that it is a great help and even essential in many trades, and that manufacturers are asking for men who can draw. The apprentice or young man in the machine shop or factory finds that a knowledge of mechanical drawing is a great help toward his advancement, while the carpenter or plumber who cannot read architectural drawings is greatly handicapped in his work. A knowledge of freehand drawing, which includes perspective, light and shade, sketching, etc., is coming to be equally important with instrumental work, as the workman finds he does not always have a draughting board and T square handy when desiring to express his ideas.

Three courses are taught in the school, mechanical, architectural and freehand. The pupils are about equally divided between the mechanical and freehand departments. The courses are well graded, and the time consumed by pupils in finishing them depends on their ability and perseverance.

The mechanical course is designed to meet the needs of machinists, engineers and others to whom a knowledge of mechanical drawing will be of assistance in their present or future work. The architectural department is designed to meet the needs of carpenters, cabinet and furniture makers, stair-builders, stonecutters, masons, plasterers and bricklayers, etc., and includes plans, sections, elevations and details of buildings. The freehand course is designed to meet the requirements of those who find that this side of the subject is of assistance to them in their daily lives, and includes machine and architectural sketching, light and shade drawings in pencil, pen and ink and water color, historic ornament, including full size detail drawings of ornament and wood-carving.

No new features were introduced during the past year.

My corps of teachers remained practically the same as the year previous; Mr. Babbitt acted as sub-master and had charge of the

course in mechanical drawing. The following statistics may be of interest:

Average attendance during first week,	97
" " " fourth week,	128
" " " twentieth (last) week,	93
Attendance the last evening,	102
Largest attendance,	141
Total number enrolled during the year,	197
Average number belonging to school,	120
Average attendance for 20 weeks,	104

Respectfully submitted,

W. A. NEWELL,

Principal Evening Drawing School.

Report of Truant Officer.

Mr. Gilman C. Fisher, Superintendent of Schools:

DEAR SIR—I have the honor to present my third annual report, in tabulated form, of the work performed in my department for the year ending July 1st, 1897, together with the census returns of school children taken by the enumerators, January 1st, 1897:

Number of cases of absenteeism investigated,	458
" " parents notified to send their children to school,	458
" " manufacturing establishments visited,	227
" " children found employed contrary to law,	15
" " employers notified,	15
" " children absent under suspicion,	458
" " truancies determined by investigation,	34
" " truants returned to school,	29
" " complaints against children,	7
" " convictions of children,	5
" " children sent to Reform School,	5
" " children warned,	458

WORK CERTIFICATES.

Number of certificates in force July 1st, 1896,	434
" " " issued in past year,	553
Total,	987
Number of children returned to school,	378
" " " become 15 years of age,	162
" " " removed from the city,	25
" " certificates in force July 1st, 1897,	422
Total,	987

CENSUS, 1897.	Boys.	Girls.	Total.
Number of children attending public schools	2168	2053	4221
Number of children attending Catholic schools	949	988	1937
Number of children attending select school	37	33	70
Number of children attending no school	336	371	707
Total	3490	3445	6935

	Boys.	Girls.	Total.
Number of children under 7 years of age not attending any school	240	266	506
Number of children 7 years and under 15 not attending any school	54	71	125
Number of children under 15 years of age not attending any school	42	34	76
Number of children under 7 years of age attending school less than 16 weeks	28	31	59
Number of children 7 years old and under 15 attending school less than 16 weeks	23	19	42
Number of children 15 years of age attending school less than 16 weeks	3	3	6

Statement in regard to the 125 children reported as not attending any school last year:

33 were sick in body or mind and could not go.
13 were not vaccinated and were not allowed to go.
8 were in school all the year.
32 are in school now.
15 have just arrived at school age and are going April 5th.
6 are 15 years old and are not obliged to go.
7 have certificates for working.
3 are keeping house while the parent is working.
6 are out of city.
1 has graduated.
1 not located.

In closing this, my third annual report, I beg leave to say that notwithstanding I have endeavored to the best of my ability to check and overcome the evil tendencies to absenteeism and truancy, evils that are so prejudicial to the well-being and advancement of the scholar, and also to the school that he attends, these evils are still more or less a disturbing factor, and will be so long as parents are so indifferent and careless in regard to the education and proper training of their children.

It would seem that, with the privileges and advantages of a good common school education free and open to all, that every one would willingly avail themselves of its provisions, and by a wise and well-directed effort insist upon their children improving them to the fullest extent. A good education is the best legacy that a poor man can give his child, but, alas, there are many who seem to care very little whether their children are educated or not, and the child is very soon aware of that fact, and takes advantage of it by absenting himself from school as often as the least opportunity affords. It is a very common remark by some parents that they can't get them to go to

school, and they will repeat it over and over in the presence of their children; a very unwise thing to do.

There is no good reason why they can't make them go; they have no trouble in getting them up at three or four o'clock in the morning to work on a milk wagon, or to go to the mill and work from morning till night; no trouble about all this, but when it comes to spending five hours in a pleasant school room, storing the mind with something that will be of practical use and be a benefit to them as long as they live, they cannot make them go.

If parents would use the same determination and settled purpose that they do about other things of less importance, there would be no trouble in making them go to school.

I am becoming more and more convinced that the parents are more to blame than their children are, and that they should be made to feel the effects of the law before proceeding against the child.

I hope that in the coming year all parents that have failed in their duty in this respect, will, assisted by the teachers and truant officer, make a determined effort to have their children in school more regularly than ever before.

In conclusion my thanks are due, and are hereby tendered to the school committee, the superintendent and the teachers, for their kind assistance; also to the police department and all with whom I have met officially in the past year.

Respectfully submitted,

J. AUSTIN FRENCH,

Truant Officer.

Grade Representatives.

[At the request of the superintendent, the teachers of each grade below the seventh elected at the beginning of the year three of their number to be Grade Representatives, to be ready on call during the year to meet the superintendent or supervisors and to voice opinions of the teachers of their grade upon all matters of importance connected with the work—the object being to bring all the members of the teaching body into closer relations with the management.]

First Grade.

Mary McGillicuddy,
Jennie L. Ellis,
Lena P. Joyce.

Second Grade.

Alice E. Bentley,
Lizzie E. Finlay,
Lucy E. Titus.

Third Grade.

Eleanor M. Jollie,
Jennie B. Jenks,
Alice L. Currier.

Fourth Grade.

Annie M. King,
Myra A. Bumstead,
Mary T. Johnson.

Fifth Grade.

Julia S. Avery,
Estella F. Scott,
Emogene Allyn.

Sixth Grade.

Isabel S. Coleman,
Myra S Robinson,
Grace M. Grant.

Membership and Attendance—1881-1897.

The following table shows the comparative condition of the schools as a whole for the last seventeen years in the several items given :—

YEARS.	Average No. Belonging.	Average Attendance.	Number in High School.	No. in Grammar Schools.	Number in Intermediate Schools.	Number in Primary Schools.	Kindergarten.	Cost per week for Teachers' Wages.
1881	2146	1954	60	131	575	1088	....	$577 00
1882	2380	2087	73	144	622	1248	....	606 75
1883	2306	2168	81	150	638	1307	....	641 50
1884	2690	2443	99	168	752	1363	....	699 25
1885	2844	2696	102	514	792	1188	....	773 00
1886	2967	2727	111	557	807	1252	....	837 00
1887	3139	2875	114	526	784	1451	....	968 62½
1888	3172	2784	105	464	923	1392	....	1134 81
1889	3387	3089	130	443	887	1890	28	1247 98
1890	3278	2968	151	608	1454	2806	33	1302 67
1891	3130	2868	156	651	1328	2423	55	1463 75
1892	3145	2868	170	586	1170	2550	74	1562 75
1893	3253	2961	226	438	722	1769	98	1684 25
1894	3524	3220	236	464	922	1773	129	1819 44
1895	3592	3291	248	420	988	1814	122	1825 30
1896	3724	3355	233	392	1050	1929	120	1878 00
1897	4026	3647	277	388	1151	2036	174	2037 01

Census Returns.

Children returned by the census taken January, 1897, . . 6935

Membership and Attendance.

1896--1897.

NAMES OF TEACHERS.	Number Boys Registered.	Number Girls Registered.	Number over 15 years old.	Average No. Belonging.	Average Daily Attendance.	Percentage of Attendance.	Number of Visitors.
HIGH SCHOOL.							
William W. Curtis	154	161	192	277	267	96	100
HANCOCK STREET.							
Mary L. Cummings	19	26	1	32	30	94	60
Sarah M. Ryder	22	32	..	36	32	91	43
Mabel Short	28	32	..	35	31	91	50
Sarah E. Ames	28	39	1	45	40	88	53
Nellie Emerson	37	22	..	36	31	88	4
Flora Howes	41	28	..	43	37	83	49
FOURTH WARD ROOM.							
Ellen McKeough	24	16	..	26	24	93	47
LAUREL HILL.							
Mary T. Johnson	30	24	..	30	28	91	124
Ellen McFee	31	28	..	40	36	91	136
Annie G. Crane	33	33	..	49	44	91	48
Ellen C. Martin	40	31	..	44	40	90	73
FAIRLAWN.							
Martha E. Peebles	35	31	2	33	30	92	64
Selina Jenkins	21	18	..	30	27	88	18
Mary E. Jenkins	20	35	..	29	21	91	57
Lena T. Paine	33	25	..	41	37	90	70
Jessie M. Bowen	42	29	..	43	38	88	65
SMITHFIELD AVENUE.							
Margaret L. McCudden	24	29	..	36	32	88	24
CHURCH HILL.							
Lendo G. Smith	13	24	6	30	29	95	74
Emma F. Jenkins	26	29	2	41	38	94	26
M. Ella Wadsworth	28	14	2	31	29	96	33
M. Agnes O'Brien	74	77	4	43	40	93	56
Minna C. Steinberg	21	28	..	51	47	93	112
Ruth C. Earle	27	15	..	31	28	90	50
Amelia M. Perry	34	26	..	44	40	91	23
A. Maude Emerson	20	28	..	31	28	91	210
Mary McGillicuddy	45	42	..	50	39	89	261

(*1896–1897 Continued.*)

NAMES OF TEACHERS.	Number Boys Registered.	Number Girls Registered.	Number over 15 years old.	Average No. Belonging.	Average Daily Attendance.	Percentage of Attendance.	Number of Visitors.
HIGH STREET.							
Louise H. Greene	16	15	..	27	26	94	32
Mary L. Carpenter	26	28	..	36	34	93	27
Carrie Greene	20	21	..	29	27	95	36
Hattie L. Cole	24	14	..	27	26	95	52
Clarinda S. Horton	22	31	1	34	31	90	89
CHERRY STREET.							
M. Etta Elliott	22	19	1	29	27	89	27
Marion D Bennett	19	28	..	35	32	92	56
Lizzie E. Finlay	21	30	..	38	35	92	153
Jennie L. Ellis	24	35	..	39	34	89	106
A. Mabel Perkins	22	32	..	33	25	81	133
CAPITAL STREET.							
Annie L. Chatterton	22	18	..	29	27	93	37
Fannie R. Evans	53	40	..	51	43	84	47
QUINCY AVENUE.							
Sarah L. Keenan	24	26	..	27	24	91	42
Mabel W. Sherman	38	24	..	42	39	92	44
GARDEN STREET.							
William P. Mudge	11	16	11	24	23	97	66
L. Frances Estes	16	18	8	29	28	97	71
Mary T S. Carey	24	23	7	43	40	94	55
Helen A. Luddy	22	20	5	34	32	93	32
Grace M. Grant	28	22	..	37	34	93	67
Agnes M. James	22	30	1	39	36	91	40
Sarah J. Kirk	26	26	..	46	43	93	70
Florence B. Howland	30	25	..	42	39	91	43
Eleanor M. Jollie	25	24	..	42	39	92	200
Florence G. Baker	29	26	..	42	39	92	70
Marianne McGinn	31	25	..	40	35	91	47
Carrie M. Bellows	44	31	..	47	41	87	177
Sara S. Brayton	26	44	..	46	40	87	228
WASHINGTON STREET.							
S. Maria Glasby	35	20	5	25	23	91	29
Ellen C. Brennan	47	51	..	27	25	89	32
CLEVELAND STREET.							
Annie Breen	24	15	..	26	25	96	65
Mary Geary	28	21	..	38	35	91	53
Elsie Waterman	26	16	..	34	31	92	46
Jennie Jeffers	25	30	..	35	33	92	32
PIDGE AVENUE.							
Annie T. Bellows	34	29	1	41	38	92	135
Katharine F. McGinn	26	25	..	40	35	89	150
SOUTH WOODLAWN.							
M. Agnes Boles	35	37	..	39	34	87	99

(1896–1897 Continued.)

NAMES OF TEACHERS.	Number Boys Registered.	Number Girls Registered.	Number over 15 years old.	Average No. Belonging.	Average Daily Attendance.	Percentage of Attendance.	Number of Visitors.
GROVE STREET.							
Elmira E. Whiting	15	15	3	26	25	94	31
S. Fannie Eddy	16	12	4	26	25	96	73
Mary D. Pollard	30	20	3	42	39	94	58
Isabel S. Coleman	23	35	..	47	44	93	42
Myra A. Bumstead	29	22	1	37	33	87	92
Alice L Currier	33	19	..	33	30	92	198
Alice E. Bentley	21	24	..	37	35	94	176
Ida E. Finley	23	29	..	35	30	87	220
Susie Greeley	44	48	..	60	55	90	472
SUMMIT STREET.							
Annie M. King	32	18	1	43	38	87	67
Maude U. Peters	18	25	..	23	21	87	53
BROOK STREET.							
Julia S. Avery	20	30	..	38	34	90	28
Carolyn A. Gallup	42	46	..	60	53	89	81
DIVISION STREET.							
Estella F. Scott	20	17	1	30	27	93	84
Elizabeth A O'Brien	28	15	..	33	29	89	55
Lucy E. Titus	16	28	..	30	26	85	102
Frances J. Moroney	19	20	..	23	20	84	100
LINCOLN AVENUE.							
Anna J. Farrell	13	11	..	15	12	82	61
Sarah L. Cullen	26	20	.	25	24	80	67
PROSPECT STREET.							
Fannie R. Carpenter	43	49	..	24	20	86	18
BROADWAY.							
Frank W. Jones	29	23	16	41	40	96	87
Mahala W. French	19	17	1	28	27	94	26
Elizabeth Ulrich	18	25	..	29	27	94	31
Margaret E. Dwyer	21	21	..	37	34	92	82
Jeanette W. Fairbrother	32	19	..	36	32	90	51
Maud Slocum	28	24	..	37	34	92	81
Lena P. Joyce	29	29	..	40	35	87	97
EAST STREET.							
Mary E. Hatch	14	16	..	27	26	94	60
Ernestine Patterson	27	21	1	35	34	95	59
Mary E. McCabe	22	37	..	41	38	92	150
Sarah R. Smith	39	35	..	53	47	89	51
MIDDLE STREET.							
Adelaide A. Cozzens	45	23	10	24	22	92	29
A. Amelia Powers	16	16	..	24	22	91	30
Jennie B. Jenks	25	25	..	40	37	92	53
Louisa Cushman	31	22	..	33	29	90	83
Hattie J. French	25	42	..	35	28	81	180

(1896–1897 Continued.)

NAMES OF TEACHERS.	Number Boys Registered.	Number Girls Registered.	Number over 15 years old.	Average No. Belonging.	Average Daily Attendance.	Percentage of Attendance.	Number of Visitors.
CENTRAL AVENUE.							
Mary E. Fredenburgh	19	13	1	23	21	90	50
Ellen F. Finlay	16	12	1	20	18	90	50
E. Agnes Crofts	23	34	..	39	35	89	35
Grace M. Fairweather	25	26	..	48	35	81	11
Margaret J. Butler	29	19	..	33	30	90	49
Julia I. Pearce	70	73	..	40	36	81	35
FIRST WARD ROOM.							
Nellie F. Martin	21	13	..	23	19	83	64
Total	3051	2947	293	4026	3647	90	8178

List of Teachers at Close of School Year.

NAME.	Date of Commencing Service.	Grade.
HIGH SCHOOL.		
William W. Curtis	September, 1888	
Henry H. Hastings	" 1891	
William H. Powers	" 1895	
William T. Jackson	" 1894	
William A. Newell	November, 1892	
Irving R. Garbutt	September, 1896	
Cora H. Dimpsey	September, 1893	
Elizabeth Little	September, 1892	
Ella M. Adams	September, 1893	
Mary G. Osborn	April, 1895	
Mary Davis	March, 1897	
Daisy M. Lowe	September, 1896	
HANCOCK STREET SCHOOL.		
Mary L. Cummings	April, 1889	V
Sarah M. Ryder	September, 1888	IV
Mabel Short	September, 1895	III
Sarah E. Ames	September, 1895	II
Nellie Emerson	February, 1889	I
Flora Howes	April, 1892	I
Ellen McKeough (W. R.)	February, 1896	IV
LAUREL HILL SCHOOL.		
Mary T. Johnson	February, 1891	IV
Ellen McFee	September, 1886	III
Annie G Crane	September, 1887	II
Ellen C. Martin	December, 1884	I
FAIRLAWN SCHOOL.		
Martha E. Peebles	September, 1896	V, VI
Selina Jenkins	January, 1897	IV, V
Mary E. Jenkins	December, 1894	III, IV
Lena T. Paine	April, 1894	I, II
Jessie M. Bowen	February, 1896	I
SMITHFIELD AVENUE SCHOOL.		
Margaret L. McCudden	May, 1884	I, II
CHURCH HILL SCHOOL.		
Lendo G. Smith	May, 1894	IX
Harriet R. Hopkins, Assistant	September, 1885	
Emma F. Jenkins	September, 1895	VIII
M. Ella Wadsworth	September, 1889	VII
M. Agnes O'Brien	November, 1896	VI
Minna C. Steinberg	October, 1894	V
Ruth C. Earle	September, 1895	IV
Amelia M. Perry	April, 1894	III
A. Maude Emerson	November, 1887	II
Mary McGillicuddy	September, 1890	I
Emma Crawford, Assistant	March, 1894	
HIGH STREET SCHOOL		
Louise R. Greene	May, 1880	VII
Mary L. Carpenter	September, 1895	VI
Carrie Greene	September, 1873	V
Hattie L. Cole	September, 1891	II
Clarinda S. Horton	February, 1896	I

(List of Teachers Continued.)

NAME.	Date of Commencing Service.	Grade.
CHERRY STREET SCHOOL.		
Mattie B. Jackson	February, 1897	IV
Marion D. Bennett	February, 1889	III
Lizzie E. Finlay	September, 1891	II
Jennie L. Ellis	February, 1891	I
A. Mabel Perkins	September, 1894	Kg.
Eugenie Hunt, Assistant	" 1896	
CAPITAL STREET SCHOOL.		
Annie L. Chatterton	December, 1884	V
Fannie R. Evans	September, 1893	I
Irene A. Pierce, Assistant	" 1896	
QUINCY AVENUE SCHOOL.		
Sarah L. Keenan	September, 1883	III
Mabel W. Sherman	April, 1895	II
GARDEN STREET SCHOOL.		
William P. Mudge	September, 1892	IX
Bessie M. Miller, Assistant	" 1896	
L. Frances Estes	" 1883	VIII
Mary C. S. Carey	May, 1884	VII
Helen A. Luddy	September, 1896	VI, VII
Grace M. Grant	February, 1892	VI
Agnes M. James	January, 1897	V
Sarah J. Kirk	May, 1896	IV
Florence B. Howland	September, 1883	III
Eleanor M. Jullie	February, 1894	III
Florence G. Baker	November, 1887	II
Marianne McGinn	September, 1891	II
Carrie M. Bellows	March, 1895	I
Charlotte W. Perry, Assistant	March, 1893	
Sara S. Brayton	April, 1892	Kg.
Grace E. Lamphear, Assistant	September, 1896	
WASHINGTON STREET SCHOOL.		
S. Maria Glasby	September, 1893	All
Ellen C. Brennan	October, 1894	I
CLEVELAND STREET SCHOOL.		
Annie Breen	September, 1888	IV, V
Mary Geary	February, 1891	III
Elsie C. Waterman	November, 1887	II
Jennie Jeffers	January, 1886	I
PIDGE AVENUE.		
Annie T. Bellows	September, 1896	III—V
Katharine F. McGinn		I, II
SOUTH WOODLAWN SCHOOL.		
M. Agnes Boles	September, 1890	I
GROVE STREET SCHOOL.		
Mary L. P. Shattuck	October, 1893	
Elmira E. Whiting	September, 1893	IX
S. Fannie Eddy	" 1877	VIII
Mary D. Pollard	November, 1891	VII
Isabel S. Coleman	September, 1891	VI
Myra A. Bumstead	" 1895	IV
Alice L. Currier	" 1889	III
Alice E. Bentley	" 1891	II
Ida E. Finley	January, 1893	I
Susie Greeley	September, 1890	Kg.
Pauline E. Tappan, Assistant	December, 1895	
Ella Sayles, Assistant	March, 1897	

(List of Teachers Continued.)

NAME.	Date of Commencing Service.	Grade.
SUMMIT STREET SCHOOL.		
Annie M. King	September, 1895	IV
Maude U. Peters	" 1896	I
BROOK STREET SCHOOL.		
Julia S. Avery	September, 1886	V
Carolyn A. Gallup	January, 1897	I–III
Mary A. Farrell, Assistant	February, 1895	
DIVISION STREET SCHOOL.		
Estella F. Scott	June, 1884	V
Elizabeth A. O'Brien	September, 1883	III
Lucy E. Titus	February, 1892	II
Frances J Moroney	October, 1885	I
LINCOLN AVENUE SCHOOL.		
Anna J. Farrell	September, 1896	III, IV
Sarah L. Cullen	September, 1890	I, II
PROSPECT STREET SCHOOL.		
Fannie R. Carpenter	September, 1884	I–III
BROADWAY SCHOOL.		
Frank W. Jones	April, 1894	VIII, IX
Su-anna Read, Assistant		
Mahala W. French	December, 1874	VII
Elizabeth Ullrich	February, 1894	V
Margaret E. Dwyer	September, 1896	IV
Jeanette W. Fairbrother	October, 1895	III
M ud Slocum	September, 1893	II
Lena P. Joyce	April, 1895	I
EAST STREET SCHOOL.		
Mary E. Hatch	January, 1885	VI
Ernestine Patterson	September, 1894	IV
Mary E. McCabe	February, 1892	II
Sarah R. Smith	March, 1895	I
Nellie F. Martin (W. R.)	March, 1894	II
MIDDLE STREET SCHOOL.		
Adelaide A. Cozzens	September, 1894	All
A. Amelia Powers	February, 1896	V
Jennie B. Jenks	June, 1885	III
Louisa Cushman	September, 1884	I
Hattie J. French	February, 1892	Kg.
Ellen Holmes, Assistant	April, 1893	
CENTRAL AVENUE SCHOOL.		
Mary E. Fredenburgh	September, 1895	VI, VII
Ellen F. Finlay	February, 1895	V
E. Agnes Crofts	April, 1894	IV
Grace M. Fairweather	May, 1894	III
Margaret G. Butler	September, 1885	I, II
Julia I. Pearce	February, 1896	I

Evening School Teachers.

EVENING DRAWING SCHOOL.

William A. Newell, Principal,	78 Brook street
Arthur B. Babbitt,	16 Lyon street
Charles H. Springer,	12 Slocum street, Providence
Alfred J. Roberts,	67 Abbott street
George W. Bartlett,	32 Gooding street
Arthur C. Gelinas,	197 Garden street
Fred H. L. James,	30 Cherry street
George H. Davis,	76 Brook street
Frank Gridley,	155 Garden street
William F. Massey,	767 Main street
Percy L. Waterman (clerk)	138 Pine street

EVENING HIGH SCHOOL.

Henry H. Hastings, Principal,	256 North Main street
Howard D. Kenyon,	391 Pawtucket avenue
Irving R. Garbutt,	386 Broadway
Cora H. Dimpsey,	85 Middle street
Edna Arnold,	119 Pine street
Belle C. Russell,	32 Hamilton street
Grace E. Lamphear,	72 Cedar street
Bertha Tucker,	16 Maynard street
Daisy Lowe,	92 Cottage street

EVENING GRAMMAR SCHOOLS.

GARDEN STREET.

William H. McKitchen, Principal,	232 Garden street
Isabella A. Clarke,	114 Knowles street
Adelaide J. Flemming,	28 Prospect street

Margaret Clark, ... 530 Broadway
Leonard M. Patton, . . . 7 Wheaton street, Providence
J. Harry Farrell, ... 27 South Bend street

HANCOCK STREET.

Robert S. Emerson, Principal, ... 89 Park Place
Mary J. Brady, ... 382 Weeden street
Nettie S. Goodale, . . . 128 Mineral Spring avenue
Mary L. Peacock, . . . 232 Mineral Spring avenue
Joseph L. Peacock, . . . 232 Mineral Spring avenue

BROADWAY.

George I. Parker, Principal, ... 162 Broadway
Jane I. Jenks, ... 88 Summit street
Elizabeth C. Hicks, ... 10 Mary street, C. F.
John H. Kelaghan, ... 112 Spring street
Albert R. Nichols, . . . 29 Portland street, Providence

GRADUATION EXERCISES

OF THE

Training School for Teachers,

CLASS OF '97,

HIGH SCHOOL HALL,

Friday Evening, June 4.

Order of Exercises.

SONG, ... Class

PRAYER, ... Rev. J. J. Woolley

ADDRESS TO THE GRADUATES, . . . Rev. Marion Law

SONG, ... Class

PRESENTATION OF CLASS TO SUPERINTENDENT OF SCHOOLS BY THE PRINCIPAL.

WORDS OF GREETING TO CLASS BY THE SUPERINTENDENT.

PRESENTATION OF DIPLOMAS, ...

Edward W. Blodgett, Esq.,
Chairman of School Committee.

SONG, ... Class

Mrs. John Jolly, Chairman of Committee on Training School, presided.

Names of Graduates.

Susie F. Almy,
Adaline H. Bliss,
Bessie B. Boles,
Margaret A. Clark,
Elizabeth M. Fletcher,
Mattie Bell Jackson,
A. Maude McGrath,
Hattie D. Munroe,
Mary Josephine O'Neill,
Mary L. Peacock,
Bertha Anne Rogers.

GRADUATION EXERCISES

OF THE

PAWTUCKET HIGH SCHOOL

CLASS OF 1897.

HIGH SCHOOL HALL,

Wednesday Afternoon, June 23.

ORDER OF EXERCISES.

Motto—"Non Scire Sed Facere."

SINGING, ... School

INVOCATION, ... Rev. Frank Appleton

RESPONSE, ... School

ORATION, ... "The Young Man in Politics."

Alton Winfred Eldredge.

ESSAY, ... "The Face the Index of the Mind."

Edith Francena Perry.

MUSIC—"Fairyland Waltz," . . . . . *Veazie, Jr*

School.

DECLAMATION—"America in the Front Rank of Nations."

. . . . . *Webster*

James Aloysius Doran

ESSAY, ... "What We Owe to New England,"

Emily Louise Smith.

SONG—"Calvary," . . . . . *Paul Rodney*

Everett Thomas Whitford.

ORATION, ... "An Educated Democracy."
Horace Clifton Small.

ORATION, ... "Our Nation's Heroes."
Edward Hawes Fuller.

PIANO SOLO—"Grande Polka de Concert," . . *Bartlett*
Jennie Blodgett McKinley.

DECLAMATION—"Cuban Belligerency," . . . *Connor*
Walter Hudson Boss, Jr.

ORATION, ... "The Press of America."
Henry Joseph Winters.

MUSIC—"High School March," . . . . . Chorus

CLASS PROPHECY,
Alice Maria Burlingame.

PIANO SOLO—"Nightingale and The Zephyr," . *B. Smith*
Louella Dennis Fifield.

PRESENTATION OF DIPLOMAS.
Edward W. Blodgett, Esq., Chairman School Board.

MUSIC—"Gloria," . . . . . *Mozart's 12th Mass*
School.

ADDRESS TO THE GRADUATING CLASS.
Rev. George J. Bloomfield.

GRADUATES OF HIGH SCHOOL.

COLLEGE AND SCIENTIFIC SCHOOL PREPARATORY COURSE.

Harry Barnes,
Alice Maria Burlingame,
James Aloysius Doran,
Alton Winfred Eldredge,
Louella Dennis Fifield,
Edward Hawes Fuller,
Thomas Daniel Higgins,
Jeanette May Jackson,
Bertha Geneva Lewis,
Jennie Blodgett McKinley,
Edna Lyle Orr,
Harrie Hazard Sherman,
Horace Clifton Small,
Emily Louise Smith,
Sally Maude Whipple,
Everett Thomas Whitford.

GENERAL COURSE.

William Baxter Arnold,
Walter Hudson Boss, Jr.,
Frank Edwin Chace,
Louis Vincent Clarke,
Mary Ellen Cox,
Arthur Henry Emerson,
Joseph Henry Fagan,
Louisa Ford,
Ann Jane Garland,
Ralph DeWitt Havens,
Harry Edward Hawkes,
Elizabeth Davy Holt,
Fannie Sarah Kenyon,
Elizabeth Knox Kinlock,
Jennie Louise Leahy,
Mary Veronica Lightbown,
Frances Anna Markey,
Rachel May Morpeth,
Edith Francena Perry,
Ellen Walker,
Henry Joseph Winters.

HONOR PUPILS.

FIRST HONOR.

Alice Maria Burlingame.

SECOND HONOR.

Walter Hudson Boss, Jr.,
James Aloysius Doran,
Alton Winfred Eldredge,
Edward Hawes Fuller,
Jeannette May Jackson,
Jennie Blodgett McKinley,
Edith Francena Perry,
Horace Clifton Small,
Henry Joseph Winters.

THIRD HONOR.

William Baxter Arnold,
Mary Ellen Cox,
Arthur Henry Emerson,
Louella Dennis Fifield,
Ann Jane Garland,
Harry Edward Hawkes,
Fannie Sarah Kenyon,
Bertha Geneva Lewis,
Frances Anna Markey,
Rachel May Morpeth,
Harrie Hazard Sherman,
Emily Louise Smith,
Sally Maud Whipple,
Everett Thomas Whitford.

GRADUATION EXERCISES

OF THE

Pawtucket Grammar Schools

CLASS OF 1897.

HIGH SCHOOL HALL.

Thursday, June 24, 2.30 P. M.

PROGRAMME.

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1. CHORUS, ... "School Friends."
2. PRAYER, ... Rev. Edward L. Houghton
3. RESPONSE, ... "Abide with Me,"
4. ADDRESS, ... Walter S. Parker, Esq., Supervisor of Schools, Boston.
5. GIRLS' CHORUS, . "When do Flowerets Bud and Blow?"
6. CHORUS, ... "Men of Harlech."
7. ADDRESS, ... Charles A. Lee, Esq., Editor *Gazette and Chronicle.*
8. CHORUS, . . { (*a*) "The Blue-bell of Scotland." (*b*) "Morning Invitation."
9. AWARDING OF DIPLOMAS, . Edward W. Blodgett, Esq., Chairman of School Committee.
10. CHORUS, ... { (*a*) "All Hearts Rejoice." (*b*) "Swinging."

GRADUATES OF GRAMMAR SCHOOLS.

CHURCH HILL.

Bertha Frances Boehnke,
Grace Thayer Bullock,
Howard Wheaton Carpenter,
Sadie Margaret Doyle,
Clara Louise Ellis,
Florence Gertrude Gaddes,
Austin Bailey Hall,
Helen May Hogan,
Louisa Roberts Holt,
Ella May Horton,
Ruth Dearing Jenks,
Blanche Lachman,
Charlotte Marie Largan,
Phebe Lucinda Lillibridge,
George Bagley Massey,
George Albert McCann,
Willie McKenzie Peacock,
Ethel Earle Randall,
Lizzie Allen Reynolds,
Amelia Augusta Riedt,
Arthur Ernest Rogers,
Mary Bell Shepard,
Martha LeBaron Sidebottom,
Rosella Smith,
Jennie Elletta Thomson,
Edith Chace Thornley,
Leon Ernest Warburton,
Herbert Allen Wilson,
Robert Armitage Wood.

GARDEN STREET.

Francis Leo Burns,
Clara May Butler,
Catherine Louise Theresa Clarke,
Theresa Emma Cox,
Lester Burton Davenport,
Lemyra May Fuller,
Richard Thomas Garland,
Frederic William Haggerty,
Alice Olivia Hallquist,
Sadie Louise Hunt,
Jennie Spaulding Keiser,
Margaret Jane Kyle,
Lillie Frances McCormick,
Jennie Louisa McCusker,
May Louise Meader,
Mary Susanna Monuto,
James Bernard Morris,
George Francis Salisbury,
Marietta Veronica Sanborn,
Harry Francis Scallin,
Edward Francis Scullin,
Emma Smales,
William Martin Wilbur,
May Wilkinson.

GROVE STREET.

Alice Amanda Addison,
Andrew N. Bruckshaw,
Louis G. Karl Clarner, Jr.,
James Henry Connolly,
Anne Mary Davis,
May Louise Fairman,
Frederick Eugene Greene,
Roberta Alice Horton,
Mabel Kay,
Alice May Linton,
Charles Edmund Longley, Jr.,
Annie Snow Luther,
James Edward McAloon,
Helen Duncan McCall,
Joseph Henry McGowan,
Susan Agnes McGowan,
Grace Evelyn McLear,
Daniel Raymond McNally,
Maude Louise McNally,
Helen Frances Miller,
Genevieve Elaine Montfort,
Alice Parsons Read,
Helen Frances Shields,
Robert Francis Wilcox.

BROADWAY.

Susan Elizabeth Abbott,
George William Ansell,
Napoleon Eldrich Bassett,
Thomas George Broadbent,
Clara May Buffum,
Ernest Derwood Burr,
Amelia Ann Cheek,
Grace Leola Darling,
William Onesime Demers,
Arthur Garfield Dexter,
Howard Allen Emsley,
Bertha Dunham Fales,
Jennie Augusta Hicks,
Lillian Hynes,
Frederick James Macdonald,
Patrick Henry McLoughlin,
Edward Terry Roberts,
Norma Fallows Robinson,
Ethel Grace Wheeler.

DEDICATION

Pawtucket High School,

FRIDAY EVENING, APRIL 30, 1897.

PROGRAMME.

INTRODUCTORY ADDRESSES, ...
Hon. John W. Davis, Mayor,
E. W. Blodgett, Esq., Chairman of School Committee.
ADDRESS—"Our Public Schools in their Relation to the Government," . . Hon. Pardon E. Tillinghast
PRESENTATION OF WORKS OF ART FROM ALUMNI OF SCHOOL, ... Mr. Frank O. Draper
PRESENTATION OF PORTRAIT OF WASHINGTON FROM THE SONS OF THE AMERICAN REVOLUTION, . General Olney Arnold
ACCEPTANCE OF GIFTS IN BEHALF OF THE SCHOOL, ... Principal W. W. Curtis

Mr. James A. Slattery, Chairman of Committee on High School, presided.

Music was furnished by pupils of the school, under the direction of Mr. A. C. White.

The building was open for the inspection of the public from 2 P. M. to 11 P. M. Friday, April 30, and from 9 A. M. to 9 P. M. the following day. The School Cabinet of Industrial Objects, contributed by the manufacturers of the city, was in position at the time; also, an exhibit of school work, grades I to IX.

Description of Building.

The building has a frontage of 140 feet on Broadway, the same on Fountain street, and 80 feet on Blackstone avenue.

On the first floor are five school rooms, each 30 feet by 32 feet, and three recitation rooms, each 15 feet by 20 feet.

On the second floor are five school rooms, same size as those on first floor, two recitation rooms, two teachers' rooms, principal's room and library.

On the third floor are the physical and chemical laboratories, drawing room, lecture room and a large assembly hall, 51 feet by 63 feet, with stage, ante rooms, etc.

In the basement are the gymnasium, toilet rooms, boiler room, etc.

The building is of brick, the outer face being of handsome yellow and fire flashed. It rests upon a granite base with trimmings of Long Meadow stone and terra cotta. The cornices and balustrades are of copper. The interior partitions are of brick, and the finish throughout is of North Carolina pine. All walls and ceilings are tinted, and there is a complete heating and ventilating system by fan and motor. The plumbing system is complete and what is known as "open plumbing."

OUR PUBLIC SCHOOLS IN THEIR RELATION TO THE GOVERNMENT.

[Address by Hon. Pardon E. Tillinghast on the occasion of the dedication of the new High School Building, Pawtucket, R. I., April 30, 1897.]

MR. CHAIRMAN AND FELLOW CITIZENS:

I esteem it a signal honor to have been invited by the School Committee of Pawtucket to take part in the exercises of this most auspicious occasion. Having been intimately connected with many of the public schools of the State, and especially with those of this city in my early manhood, I take special interest in all that pertains to their development and prosperity.

And first, permit me to heartily congratulate the citizens of Pawtucket upon the erection and completion of this commodious, well-appointed and stately building which is to-day set apart for the higher education of our children and youth. Permit me also to especially congratulate the teachers and pupils of this High School that your weary journeyings in the wilderness of antiquated and dilapidated schoolhouses is at an end, and that you have at last safely arrived in the long-promised land. To the School Committee, under whose immediate supervision this building was planned and erected, we are all greatly indebted. By their untiring and persevering efforts this city can now boast of a High School building which is not only well adapted to the noble purpose for which it was erected, but also is an ornament to this thriving and intelligent community.

I am to speak to you of "OUR PUBLIC SCHOOLS IN THEIR RELATION TO THE GOVERNMENT." Before proceeding, however, I ought to say, by way of explanation, that on the occasion of the dedication of the Grove street schoolhouse, I gave expression to some of the thoughts contained in this paper. Since then I have further examined, with much care, the main question that I shall discuss, and it has so impressed me with its importance that I shall make no apology for considering it again I may also properly add that the committee has requested me to speak upon the subject of MANUAL TRAINING IN OUR PUBLIC SCHOOLS.

Our government being republican in form—that is a government of the people—it necessarily follows that it will be shaped and moulded by the habits and characteristics of the people, and that it will embody, intensify and reflect their tastes, their purposes and their standards.

In a word, that the government will be just what the people make it, and they will make it substantially what they are themselves. Water will not rise above the level of its source.

"Like people like priest," is a maxim no less true in civil than in religious institutions.

If the people be upright, virtuous, intelligent, benevolent, well educated, the government will surely take on, reflect, and be modeled after the same high standards.

If, on the other hand, the people be ignorant, selfish and illiter ate, the government will be low, sordid and oppressive; a galling burden to support, rather than a strong arm to sustain.

That good government is highly desirable, as tending to promote the happiness of each individual member of society, and of developing the highest type of nobility and manhood, needs no argument to prove.

And that bad government is greatly to be deplored, as strongly tending to degrade, debase and corrupt the individual members of society, has been proven to be true, not only in the history of the Decline and Fall of the Roman Empire, and in that of the French revolution, but—sad to say—in the history of some portions of own beloved land as well.

The betrayal of a public trust by one in high official station exerts a *tremendous* power for evil upon the whole community in which he moves.

It materially weakens their confidence and impairs their faith in each other.

It even leads them to suspect and question their own personal rectitude, and to query whether, after all, there *be* any real goodness or virtue in mankind.

"Who shall keep the keepers?" say they. "If we cannot trust our chosen leaders, whither shall we look for guidance and help?"

And then to those especially, who themselves are weak and vacilating, ready to follow the lead of every designing schemer or brazen adventurer—those who do no independent thinking for themselves—such examples beget habits of baseness and furnish incen ives to evil.

On the other hand, competent, high-minded and trustworthy officials inspire the confidence and respect of all classes of people, give honor and dignity to the station which they occupy, and add strength and permanency to the government.

How shall such officials be obtained?

I answer, by everywhere cultivating and promoting a high order of citizenship amongst the people. Purify the spring, and the stream flowing therefrom must be pure.

How shall this be accomplished?

I answer, mainly by our system of public schools.

In these are taught not only book-knowledge, technically so called, but morality, temperance, courage, truthfulness, philanthropy, *patriotism*; and, in a word, all of the virtues which go to make up the genuine American citizen.

The public school may thus be said to be the nursery of good citizenship.

And, as good citizens make a good government, our public schools may properly be said to be the chief corner stone of good government.

In the farewell address of the immortal Washington, delivered one hundred years ago last September, the importance of cultivating the principles of morality is urged in the following terse language:

"It is substantially true that virtue or morality is a necessary spring of popular government. The rule, indeed, extends with more or less force to every species of free government. Who that is a sincere friend to it can look with indifference upon attempts to shake the foundation of the fabric?

Promote, then, as an object of primary importance, institutions for the general diffusion of knowledge. In proportion as the structure of a government gives form to public opinion, it is essential that public opinion should be enlightened."

Our public schools are eminently American in their purpose and plan.

The great fundamental doctrine that "all men are created free and equal" finds fullest expression and emphasis here.

The rich and the poor meet together on a common level, each enjoying the same rights and privileges, and each being subject to the same duties and restrictions.

No race, no color, no condition, no creed, separates or degrades the pupils of our common schools. Merit alone entitles one to rank above his fellows.

And even this does not tend to create a *class* distinction, but only to foster a spirit of generous rivalry, and encourage the laudable ambition to excel.

Our public schools teach obedience to, and respect for, constituted authority, as the only means of securing peace and good order in society. Every school is therefore a miniature State, in which the rules and regulations adopted for its government and discipline, are the alphabet and primer of the laws of the State.

And having learned the rudiments of obedience and loyalty in the school, those who are taught therein naturally and readily come to be law-abiding and law-respecting citizens in the State. "Train up a child in the way he should go, and when he is old he will not depart from it." "'Tis education forms the common mind: Just as the twig is bent the tree's inclined." Educate the child in the wrong direction, and you give him a tremendous impetus on the downward road to dishonor and destruction; educate him in the right direction, and you cultivate and set in motion those intellectual and moral forces which form the warp and woof of true manhood, and lead to highest success and grandest achievements.

Education thus practically becomes second nature. For when one is trained to think correctly and speak correctly it becomes natural for him to think and speak correctly, and it is only with an effort that he does the contrary. If a child is trained to be diligent, prudent, painstaking, courageous, these qualites become part and parcel of himself, and he involuntarily manifests them in after life. So it is with all training, both mental and physical; it enters into and forms a part of the individual, moulding and shaping him into the likeness of the model set before him. How true it is of man, as said of old, that "As he thinketh in his heart, so is he."

The lawless element in the community is not made up of the graduates of our public schools, but of those who, either from choice or misfortune, have not enjoyed the privileges thereof.

I speak advisedly, when I say that it is very seldom that a graduate of our public schools is found to be a violator of any of the laws of the State.

I also speak advisedly when I say that the great majority, indeed I may say nearly all of the crimes and offences committed against the laws of our State, are committed by those who have not been trained and educated in our public schools.

The young hoodlums, roughs and pickpockets, who hang upon the skirts of society, who lurk in the lanes and byways of our cities, a constant menace to the peace and welfare of the community, are not the product of our public schools, but are the outgrowth, in the main, of generations of ignorance, vice and crime.

The government not only receives no aid, either moral or material, from this class of its citizens, but, on the other hand, is obliged both to provide for and protect itself against them.

They are the moral paupers of the State, and the mortal enemies of the government. They sleep not until they have done some evil. They live and move and have their being in making others unhappy and wretched. They are the moral malaria of society, sowing the seeds of corruption, and breeding discord, vice and wickedness.

The graduates of our public schools, however, having been trained to habits of obedience, fidelity and industry, promptly become useful members of society, and add strength and stability to the body politic.

They are the conservators of the public weal and the fruitful source of the Nation's greatness.

Our public schools greatly aid the government in Americanizing and assimilating to our institutions the great hosts of foreigners who annually immigrate to our shores.

Said the late lamented President Francis A. Walker, probably the best authority then living on all matters relating to our national census, in the *Forum*, in 1890: "During the past ten years five and a quarter million of foreigners entered the ports of the United States. We have no assurance that this number may not be doubled in the current decade.

Only a small part of these newcomers can read, while the general intelligence of the mass is even below what might be assumed from such a statement.

By far the greater part of them are wholly ignorant of our institutions, and, too often having been brought up in an atmosphere of pure force, they have no sympathy with the political ideas and sentiments which underlie our social organization; often not even the capability of understanding them."

And in the same article he adds: "So long as any difference of economic conditions remains in our favor, so long as the least reason appears for the miserable, the broken, the corrupt, the abject, to think that they might be better off here than there, if not in the workshop, then in the workhouse, these Huns and Poles and Bohemians and Russian Jews and South Italians will continue to come, and to come by millions."

During the past year, according to the information which comes to us through President Cleveland's last message to the Congress, 340,468 immigrants were permitted to land on our shores. Upwards of 28 per cent of all these immigrants over 14 years of age were illiterate. Out of 57,515 of said number who came from Italy $54\frac{5}{10}$ per cent were illiterate, while out of 35,188 who came from Russia upwards of 41 per cent were illiterate. Of those who came from Austria, Hungary and Provinces, upwards of 38 per cent were illiterate, while of those who came from Portugal upwards of 77 per cent were illiterate. Those from Germany and Sweden, however, rank very high; the former showing less than 3 per cent of illiteracy, and the latter only 1.16 per cent.

A large proportion of these incoming multitudes are children and youth; and the question at once arises in the minds of all intelligent thinkers—and it is a vital question indeed—what shall be done with them in order that they may become an element of

strength instead of a source of danger to our Republican Institutions,—for they will surely prove to be the one or the other, and that right speedily.

My answer to this grave and important question is, that *we must educate them.*

There is positively no other hope, either for them or for us. For if ignorance and superstition, with their natural accompaniments of vice and crime, are once allowed to obtain sway in our beloved land, our dearly bought, dearly preserved, and much boasted liberties will soon fade away and be numbered with the things that were.

Already the ominous mutterings of socialism and anarchy may be heard within our borders, and the hands of many of those whom we have hospitably received are lifted up against us.

Ignorance is the mortal enemy of the State, and would rejoice in its overthrow and utter destruction.

The State must therefore meet and vanquish ignorance in order to protect and perpetuate its own existence. As self-preservation is the first and highest law of the individual, so, likewise, it is of the State; and whatever is necessary to accomplish this, the State not only has the right, but is morally bound to do.

In other words, the State must protect itself against all those who are seeking its overthrow. It must vanquish its enemies or be itself vanquished and destroyed by them. It must supplant ignorance by intelligence and virtue. The body politic is diseased, and education, in its largest sense, is the only specific for the malady.

Our public schools must meet and overcome this arch enemy *ignorance*, by filling the land with light and knowledge, and by implanting in the minds of the rising generations the health-giving and vitalizing principles of virtue, truth and loyalty.

Those who come from abroad to cast in their lot with us must be made to feel that our interests are their interests; that what tends to our prosperity and happiness also tends to their prosperity and happiness; and that whatever tends to strengthen and perpetuate our beneficent Republican Institutions tends also to proclaim and establish the universal brotherhood of all mankind.

Our public schools can and must accomplish all of these noble purposes. And when we look at the vast multitudes who are constantly being instructed therein, we certainly have occasion to look forward with the fullest confidence to a future for our beloved country, compared with which the past is but as the early dawn to the full-orbed splendor of the noonday sun.

In our own small State, (small only in territory, however,) upwards of 57,000 pupils, or about 15 per cent of our entire population, were enrolled in our public schools last year, and upwards of $1,000,000 was expended in maintaining said schools.

And this is only a sample of the magnitude and importance of the system throughout the Nation, for now there are public schools *everywhere;* not only on the hills and in the valleys of our own rugged New England, where they had their birth, but dotting the waving plains of the great West, nestling in thousands amongst the pine and palmetto groves of the Sunny South, and standing as sentinels on the golden shore of the broad Pacific.

What a tremendous factor for good in all of our affairs, and especially in its relation to the government of our country, is such an institution as this, and how richly fraught with promise of future prosperity and greatness!

Having said thus much in praise of our public schools in their relation to the government, I desire now to add something by way of criticism of the system; not, however, in any spirit of fault finding, but rather by way of suggesting improvements.

It has long seemed to me that our system of public education is largely a one-sided system; that it educates the intellectual side of the man, but neglects to educate the physical side; that it trains the head but not the hand.

One of the evil results of such an education is, that the mind is developed at the expense of the body. How common it is amongst highly educated people in particular to find a strong, vigorous and even brilliant mind, in a weak, ill-developed and loose-jointed body.

The mind has been diligently cared for, wisely trained, and richly stored with all kinds of book knowledge, while the poor body, the tenement of that mind, has not only not received the care and attention necessary to a healthful development thereof, but has been positively ill treated by being forced to do its work without the aid and nourishment which can only come from the *joint* exercise of mind and muscle. Having a dual nature—an intellectual and a physical—and these being interdependent in the discharge of all the duties of this life, it is of the very highest importance that they should act in harmony, each contributing its share of energy, and thus making up the *whole* man. "When is a man well educated," was once asked by an instructor of youth; and the answer which received the prize was this: "A man is well educated when all of his mental, moral and physical powers are fully developed."

Another evil result of the one-sided education aforesaid is that it tends to beget in the minds of youth a disinclination for manual labor and a too general desire to be able to live by the use of their wits. A boy who does nothing but study until he is eighteen, or perhaps twenty years of age, is not only in no condition for manual labor, but is very naturally averse to it; and it is not strange that he should select some occupation which promises

exemption therefrom. A girl, also, who devotes herself exclusively to the curriculum of the schools during her childhood and youth, is but poorly equipped for life's battle, whether it is to be fought single-handed and alone, or in company and with the aid of him who shall be the partner of her choice. The duties of wifehood and motherhood especially—the crown and glory of woman—cannot be fully discharged, either by the rich or by the poor, without a well-developed mind in a well-developed body.

One of our friendliest and most judicious critics in England, Mr. William Mather of Manchester, in his report made to the Royal Commission on Technical Instruction, says:

"Too large a class of young people in America of both sexes are seeking pursuits not requiring manual labor. Their education, as given at present in the high schools and colleges, tends rather to unfit them for the active industries of life in a country where the vast resources of nature are waiting for willing and trained hands to utilize them. The native-born American hates drudgery; and all the mechanical arts, when pursued without some knowledge of science to employ and interest the mind while the hands are active, are more or less drudgery. The American boy, with his inborn ambition and natural ingenuity, would cease to regard manual labor as drudgery if his hand and mind together were industrially trained through the school period. He would then be led into industrial employments by choice as the readiest means to climb to a higher position in life."

"The domestic and scholastic education of our time," said Froebel, leads children to indolence and laziness; a vast amount of human power remains undeveloped and is lost. It would be a most wholesome arrangement in schools to establish actual working hours similar to existing study hours; and it will surely come to this."

One of the effects of the tendency to which I have referred is to overcrowd the professions and the positions which require only mental labor, and to withdraw from the mechanic arts and from mercantile, agricultural and other pursuits requiring manual labor, a great number of persons who have little or no capacity for professional life, and hence make a failure therein, but who, had their natural bent been followed, would have succeeded admirably in other vocations.

How many boys, whom nature intended for first-class mechanics, or farmers or artizans, have eked out a miserable existence as bungling doctors, pettifogging police court lawyers or unendurable ministers—daubing with untempered mortar—and simply because their natural bent was not discovered and fostered during the plastic period of their lives. Neither their parents or teachers ever set themselves about the task of finding out *what was in*

these boys, and then of bringing it out, but were content with simply *pouring into* them a carefully measured quantity of book knowledge, regardless of their individual capacity or possibility. In short, they were treated practically as though they were all quarried from the same mine, and each intended for the same niche in the universal gallery of man. If it is true, as Christian philosophers teach us, that every man is created to fill a certain place and perform a certain work in the great economy of human life, how sadly has the plan been distorted by the multitudes who have "missed their calling" simply through ignorance of themselves.

The familiar injunction by Pope—"Know thyself"—has been strangely perverted into—"Know everybody else *but* thyself." For one, I consider it nothing short of a personal calamity for a man to have chosen a vocation for which he has no natural liking and but small capacity. Labor in such circumstances, of whatever sort it is, becomes irksome and vexatious, and instead of ministering to the health and happiness of the laborer, as it ought to do, only adds to his discontent and misery. He is simply out of joint with the world, and hence life goes hard with him. Of course I do not expect the evil tendency which I have suggested to be wholly remedied by an all-round education; for, unfortunately, there are multitudes of people who, whatever may be done for them, either have no capacity or no inclination to do anything for *themselves*, and hence must be carried by society as one of its inherited burdens. But what I do contend is, that by seeking to develop the child along the lines of his natural capacity, and also in all cases instilling into his mind a due regard for manual labor, a far greater proportion of the people will come to find and fill the places to which they are best adapted, thereby reducing the burdens of society to a minimum and at the same time increasing individual happiness to a maximum.

Again, we ought to realize the fact that the great majority of our children—*upwards of ninety per cent thereof*—are to become wage earners, with no other capital than brains and hands; and in order that they may use this capital to the best advantage, it is of the highest importance that both brains and hands should be properly trained for their work.

It was a custom among the Jews, as long ago as the time of the Cæsars, that all boys, irrespective of condition as to wealth or poverty, should learn a trade. "What is commanded of a father towards his son?" asks a Talmudic writer. "To circumcise him, to teach him the law, to teach him a trade." Rabbi Judah saith: "He that teacheth not his son a trade does the same as if he taught him to be a thief;" and Rabban Gamaliel saith: "He that hath a trade in his hand, to what is he like?" "He is like a

vineyard that is fenced." St. Paul, the great apostle to the Gentiles, and one of the most learned men of his time, was a tent maker, while our blessed Lord and Master himself, was a carpenter.

Rousseau and Pestalozzi and Locke insisted on manual training as a necessary part of the education of the boys of all classes; and it is well known that in Sweden, France, Germany and other European countries, manual training has long been considered an indispensable part of the education of boys at least.

To be able to perform some kind of manual labor with a reasonable amount of ease and skill, fortifies one against idleness, which is the fruitful mother of vice, as well as against adversity. Teach our boys and girls by practical experience that manual labor is not only honorable but highly useful, both from the hygienic and the intellectual standpoint; that it is conducive to health and longevity and happiness, and that it is in accordance with the divine economy that "in the sweat of thy brow shalt thou eat bread," and who doubts that mendicancy, with its train of giant evils, would largely disappear from our land, that cringing servility and fawning sycophancy would give place to manly independence, and that in place of the jail and the poorhouse there would appear the cottage and the schoolhouse. And in this connection permit me to say that I have no patience whatsoever with laziness. A man who is able to earn an honest living, but who refuses to work, and thereby becomes a public charge, is an enemy to the State, and a fit subject for the treadmill or the chaingang.

Drawing, which is one branch of manual training, should be taught in our public schools as regularly and systematically as arithmetic or grammar, not for the purpose of making artists of our children, but of cultivating a mode of concrete expression, and of building up in their minds a clear and accurate concept of form as a basis for thinking and doing.

"Drawing is fundamental. It is the basis of all the construc tive industries, all pictorial art and decorative design." It is the one universal language, and its importance in all mechanical and artistic pursuits is only comparable with that of reading and writing. Drawing not only tends to cultivate and develop the æsthetic side of our being, by bringing us into close sympathy with the beautiful in nature and art, but it is an invaluable aid as well in the common every day affairs of life. It teaches how very easy and inexpensive it is to combine the artistic with the useful, and thus minister at once both to the æsthetic and the physical demands of our nature. It undoubtedly pays to teach drawing in our public schools.

Another advantage to be gained by manual training is that education in the concrete fixes and rivets the attention and concen-

trates the mental energies, as education in the abstract cannot possibly do. The mind is so constituted that thoughts and things are inseparably connected. In other words, we practically think in the concrete, because we alway in effect think of some thing. It is true that we speak of strength, force, color, energy, wisdom, vice, happiness, pain, and a thousand other qualities in the abstract; but the mind instantly and necessarily connects them with some tangible object or thing, and can only understand and appreciate them in proportion as they are exemplified to the physical observation and experience of the individual. A blind man can never be made to understand and appreciate the beauties of the rainbow or the landscape, nor can one who is deaf ever be moved by the concord of richest harmony. His attention cannot be fixed upon these things because he lacks the physical sense which takes cognizance thereof. At most he can only think of them in comparison with something which he is capable of comprehending. Thus it is recorded that a blind man, upon being asked to describe a red color, replied that it looked to him like the blare of a trumpet. He had heard the trumpet, but had never seen the rose.

That the combination of mental and manual instruction strongly tends to the concentration of thought upon the subject to which the attention of the pupil is being directed, is not only proved in our daily experience with children, but by the unanimous verdict of those in charge of Industrial Education everywhere. What creates the demand for the thousands of toy shops in our cities and towns but the almost insatiable desire of children for something tangible to occupy their attention and satisfy their creative energies? Who that is possessed of any knowledge on the subject doubts the great usefulness of the kindergarten school for children? Give a two-year-old boy a basket of blocks and you will at once discover the existence of the constructive faculty within him. Give him a jackknife and a shingle, a little later in life, and this faculty will be much more apparent. Give a two-year-old girl a doll and a ribbon, and from mere intuition she will set herself about the task of adorning the doll with the ribbon. To recognize and develop the inborn faculties which thus early begin to manifest themselves in these as well as in numerous other ways, is to build along the lines marked out by the Great Creator himself.

"Train the child to habits of observation, industry and exactness," says a teacher in Woonsocket, "and the elementary education will be but *play* for his active mind."

A report from the Cleveland, O., Manual Training School shows that the interest which the boys take in the work is very great. And the fact that more than four-fifths of the pupils asked per-

mission to work in the shops during the vacation at Thanksgiving, and nearly as many at Christmas, is sufficient proof of this statement.

The influence upon the general character of the pupils is well shown by the following extracts from letters. Hear what the Principal of that school says:

"By having pleasant and profitable employment a certain number of hours each week these pupils acquire a new interest in their studies. They are fully sustaining their former rank in scholarship, and more. I believe also that there is a great gain in the matter of discipline."

"A mutual friend and public educator asked me the other day what the influence of the manual training school was upon the high school pupils who attended it. I told him—and the same may encourage you—that it was beneficial in many ways. Many of the boys are in my classes and I find them among the best prepared always, and always the most practical. I certainly think discipline is easier from the influence of that school."

"From the testimony of parents the physical, intellectual and moral effect of the school is exceedingly satisfactory."

Another and very important advantage is this: Skilled labor is everywhere in demand, and at remunerative wages, while unskilled labor is a drug in the market. The boys and girls of our public schools will need and must have higher wages than can be commanded by unskilled laborers in order to be able to possess and enjoy even a modicum of the advantages of the higher civilization for which their education fits them. The early training which I advocate will lay the foundation for skilled labor in the various walks of life, and thus add materially to the wage-earning capacity of the rising generation—a condition to be most devoutly desired; for, economically speaking, a man's income is his life.

Shylock said:

> "You take my house, when you do take the *prop*
> That doth sustain my house; you take my life
> When you do take the means whereby I live."

The skilled laborer has the advantage, also, of being in the line of promotion, with not only the possibility but the probability of himself coming in due time to be the manager and finally the owner of the business in whose service he at first enlisted; and thus, instead of always remaining a mere employe, as must be the case with an unskilled laborer, to become himself the employer. And what a powerful stimulus to the putting forth of one's best energies is the well founded hope that such success will eventually crown his efforts!

Again, we are a utilitarian people. We believe in the doctrine that the greatest good of the greatest number should be the end

and aim of all social and political institutions. We abhor class distinctions, and refuse to promote or even recognize an aristocracy of wealth, of social standing or of education among us, which is equally as objectionable as an aristocracy of caste. We believe in the people, the whole people, and we confidently rely upon their capacity to work out the great problems of political, social and economic life in such a way as shall conduce to the constantly increasing happiness of each individual member of society, and thus demonstrate the superior advantages of a republican form of government,

But the question will naturally and very properly be asked, is industrial education practicable as a part of our public school system?

I answer that, in so far as it has been tried, it has proved to be both eminently practicable and highly useful. In New York, New Haven, Philadelphia, Boston, Springfield, St. Louis, St. Paul, Denver, Omaha, Washington, Baltimore, Louisville, Chicago, and many other of our large cities, manual training has come to be a well recognized branch of public education, and is meeting with marked success.

Hundreds of other cities and towns have adopted it on a small scale and found its results eminently satisfactory, while hundreds more are agitating the subject with a view to its speedy introduction; and it is generally receiving, as its great importance demands, the hearty and almost unanimous endorsement of the foremost educators and practical thinkers of the present day. Permit me to call a few of them as witnesses. Superintendent Wickersham of Pennsylvania, says:

"It is high time that something should be done to enable our youth to learn trades and to form industrious habits and a taste for work.

It is not enough to instruct a boy in the branches of learning usually taught in our common schools, and there leave him. It must be seen to by some authority that he is allowed a chance to prepare himself to earn a livelihood. It takes more than a mere knowledge of books to make a useful member of society and a good citizen. The present product of our schools seems to be, in too great a degree, clerks, bookkeepers, salesmen, agents, office seekers and officeholders. We must so modify our system of instruction as to send out instead large classes of young people fitted for trades, for business, and *willing and able to work.*"

Mrs. Spencer (then Miss Anna C. Garlin,) wrote:

"Let the child be taken to school whole, instead of in parts, let him be considered to have a body as well as a mind; let him be trained physically toward us by a wise shaping of the eager animal activity; let him be protected from the cupidity of the

manufacturer and the pressure of home poverty by utilizing the active energy which in more primitive times was of so much account in the family economy; let him be gradually introduced into that *hard world of work* for which he is destined, by a training which shall be of the hands as well as of the brain. * * * * If we are to protect the children of the very poor from the very worst consequences of their condition without making paupers of them or their parents, we must continue (after the training of the kindergarten) in some way to give them study and work together."

James McAlister, formerly superintendent of schools of Milwaukee, later superintendent of schools at Philadelphia, and now president of Drexel Institute, says:

"It is an egregious mistake to suppose that those who favor manual training wish it to take the place of mental training, or are seeking to deprive any class of pupils of the portion of intellectual culture they now receive. But I would like to know why the hand should not be trained as well as the head? The perfectly educated man is he whose facile hand follows obediently the clear and ready promptings of a well developed brain. The hand is the most marvelous instrument in the world; it is the necessary complement of the mind in dealing with matter in all its varied forms. It is the hand that "rounded Peter's dome;" it is the hand that carved those statues in marble and bronze, that painted those pictures in palace and church which we travel into distant lands to admire; it is the hand that builds the ships which sail the sea, laden with the commerce of the world; it is the hand that constructs the machinery which moves the busy industries of this age of steam; it is the hand that enables the mind to realize in a thousand ways its highest imaginings, its profoundest reasonings and its most practical inventions."

Prof. Woodward, the able director of the celebrated manual training school at St. Louis, and doubtless one of the most successful educators of the present age, says:

"There is an evident absurdity in taking a large majority of the children of any community and educating them as though in life they were to be chiefly concerned with literature and art and the luxuries of life, and not at all with labor and industry.

But this rests the claims of the new education too much on an economic basis. The demands for a broader and more complete education are no less strong on the grounds of intellectual and moral development. The average good citizen is called upon to exercise his judgment in regard to a hundred material problems where a knowledge of mechanics and industrial methods is as essential as that of reading and writing; and he is called upon to discriminate between right and wrong, between thrift and waste,

between fitness and unfitness in reference to countless matters of everyday concern, but which are wholly remote from the concern of the old-time schools. No man can be equipped to stand forth in the working world and to make the most of himself as a leader, if he is fitted for leadership, or as a follower, if he is best adapted to following, without manual as well as mental training—without the development which comes from the simultaneous cultivation of all his powers.

Manual training, as an educational factor, owed its existence to a widespread conviction that the education of the schools had been dealing too exclusively with the abstract and the remote and not enough with the concrete and the present. The thought product of the school was too dim and uncertain, and the knowledge gained had no sufficient bearing upon the matters of daily life. Consequently the pupil lacked mental vigor and clearness, and his school experience was deficient in practical elements. Manual training embodies pre-eminently the modern idea of substituting things for words, observation for printed description, and personal experience for the recorded experience of others."

Prof. Franke of Harvard University, in 1886, wrote as follows in a letter to a German paper:

"Since the days of Rousseau the effort to educate the rising generation in a more harmonious way than is possible in a school which aims only at the acquisition of mere scholarship has never been abandoned. The emphasis which the followers of Basedow laid upon the gain of useful knowledge; the thought of Pestalozzi that the first step in education consists in the schooling of the will, while mental discipline must be treated as something secondary; Father Jahn's gymnastics, Frobel's successful attempt to develop reason through the cultivation of the senses, and, finally, the measures which have led to the establishment and growth of the polytechnic school—all these manifestations are still only symptoms of the one fundamental idea that education must be directed, not to *know*, but to be able *to do*; *not to words, but to deeds.*"

"It appears to me that nowhere yet has this idea reached such a methodical expression as in the Manual Training School of St. Louis, which, unlike our German trade schools (in which only one craft or occupation is taught to artisans,) appeals to the whole community, and aims at general pedagogical subjects."

Prof. Felix Adler of New York, says: "About the moral advantages of shop work it is almost needless to speak, for they are so obvious. The diginity of labor is impressed upon the pupils in the shop. They learn patience, perseverance, mutual coöperation and willing subordination under superior ability. We find that many pupils that are deficient in the ordinary studies of the

schools excel in shop work. Their writing is poor, their spelling execrable, but tools fall into their hands and they are easily aroused. This builds up self-respect and confidence, and is a means of progress to them, even in those studies in which hitherto they have been deficient."

John S. Clark of Boston, in an able paper read before the National Education Association at Saratoga, said: "The industrial training should have no issue with the literary training. We have seen that both are needed in a sound course of mental training. Both are equally demanded by the social conditions of any highly organized community. That the purely literary training is not broad enough to answer as a higher educational training for those who are to enter our ever-expanding industrial employments, which demand in a high degree the applications of natural science and also of skilled labor, is a fact which cannot be denied. To remedy this state of things secondary schools must provide a way to give broader instruction in experimental and theoretical science; and also in a generalized form instruction in manual training, including the use of hand and machine tools, not in its application in any special trade or trades, nor as a training divorced from general intellectual culture, but as an essential part of a sound education."

Commissioner Eaton, lately of the U. S. Bureau of Education, says: "The elevation of the working classes is an inevitable result of educating them in industries. The direct effect upon the intellect is great and beneficial. The immediate moral influence is of the best. A manly feeling is awakened and kept alive by the consciousness of power and skill to do. An incentive to frugality and enterprise is set forth. It has been laid down as a rule by Prof. Edward Atkinson that—

'Other things being equal, high wages, coupled with low cost, are the necessary result of the most intelligent application of machinery by the arts, provided the education of the operative keeps pace with the improvement of the machinery.'

Industrial education dignifies labor as well as opens doors to its skillful and remunerative performance. If labor has a noble end and purpose, if it employs intellect, if it abundantly rewards its servants, then it is worthy to be crowned."

Mrs. Louisa Parsons Hopkins, one of three Commissioners appointed by the late Governor William E. Russell under a resolution of the Legislature of Massachusetts to investigate and report as to the existing systems of manual training and industrial education, together with such recommendations as might seem best to them, uses the following language concerning the *moral* result of manual training:

"Occupation, although the passive side of manual training, is

yet the salvation of disciplinary methods. Give the child a tool, you at once differentiate him from the animal; he begins to feel his human capacity and his human relations; he wants to work out his ideas and give tangible shape to his thought, to communicate what he knows, and become a unit in the unity of human brotherhood. Fraternal industry is the watchword of our times. A few principles and simple tools give the key to all trades and arts. The boy must know how to take his place in the economy of the household. Give him the saw, the plane and the hammer. Let him take his knife out of his pocket and turn it to good account. Let the girl learn housewifery, sewing and cooking, that the home may be a beneficent factor in our private and public life." * * * *

"All our present efforts at industrial education are in the interest of homes that shall save men from vice, society from disorder, and the laborer from despair. Skill at some trade, aptness at some hand-work, the ability to support one's self, to do something which has a market value, is a great preventive of crime. Who can point to a skillful mechanic of good and available health whose family are beggars?"

If after this array of testimony any of you entertain any doubts as to the wisdom of adding manual training to the curriculum of our public schools, I invite you to read the exhaustive and able report of the Massachusetts Commissioners thereon, which Commission was composed of Hon. Edwin P. Seaver, Superintendent of Public Schools of Boston; Hon. George E. McNeill, an authority on social and economic questions; and Louisa Parsons Hopkins, a woman of rare judgment and intellectual ability.

Another report of equal value and importance on Industrial Education has been made by a very learned Commission appointed under a resolution of the Legislature of Pennsylvania.

Hon. William T. Harris, our United States Commissioner of Education, gives much prominence to the subject in his latest report to the Secretary of the Interior, and I am indebted to him for valuable assistance in connection with my investigation of the question under discussion.

I must not fail to add the testimony of our own State Commissioner, Mr. Stockwell, an educator of large experience, to the importance of manual training. He says:

"In the upper grade of our grammar schools, and in the high schools, if physics were taught experimentally, the pupil would acquire from a thorough course in that study all that aptitude for handling tools, that acquaintance with the nature and use of different kinds of materials, that opportunity for the development of whatever latent inventive genius there may be, which are claimed to be the real benefits to be secured from manual training."

That industrial education is both practicable and highly useful, as a part of our public school system, as I have thus attempted to prove, is shown by the work already actually accomplished in our own State.

The city of Providence has recently established a high school with a manual training department, which for completeness of equipment, systematic arrangement and thoroughness of instruction, entitles it to be classed with the best schools in the land. It cost upwards of $100,000, has a corps of excellent teachers, each one of whom is not only well qualified for his work, but is enthusiastic in the performance thereof. Mr. George F. Weston, the principal, is thoroughly imbued with the great importance of industrial education; and the excellent success of the enterprise attests his capacity for leadership therein. I am informed that the first graduates of this school immediately found employment in the large manufacturing concerns of Providence.

In the Cambridge, Mass., training school there are at present 275 pupils, boys and girls, and from what I myself witnessed on a recent visit thereto, I am sure that the manual training which they daily receive gives them an intellectual stimulus which the regular order of exercises in our public schools cannot possibly give. The four years course of this school includes a study of the English branches, including rhetoric and English literature, mathematics, physical science, bookkeeping, German, political economy, civil and electrical engineering, civil government, drawing, photography and engraving, together with work in chipping and filing, which is the foundation of all machine work in iron, forging, carpentering, modeling, wood turning, pattern making, machine construction and steam engineering. For the girls there is sewing, carpentering, modeling, wood carving, cooking, domestic science, including chemistry of nutrition, millinery, home nursing, household sanitation, biology and dressmaking.

In addition to this school the city has established cooking schools, and made it compulsory that each girl in the eighth grade in all the grammar schools shall take cooking lessons one-half of the school year. Sewing is also taught in 134 different rooms in upper half of the primary schools, more than 5000 children receiving instruction therein, while drawing, the importance of which can hardly be overestimated, is taught in nearly all of the city schools.

The city of Newport also has taken advanced ground in the movement, and from small beginnings, under private enterprise conducted by Hon. William P. Sheffield, Jr., and Mr. Charles E. Hammett, there has grown up a sentiment in its favor so strong that the taxpayers, by a vote of nearly two to one, have recently expended $38,000 in the erection and equipment of a fine build-

ing known as the Townsend Industrial School, which school has been made a part of the public school system of the city, and is a marked success. The large and valuable lot on Broadway, on which the building stands, was given to the city by the late Miss Ellen Townsend. In the report of the School Committee for the past year the school is thus referred to:

"The school is unique in that it is the first manual training school maintained by a municipality in which both boys and girls are taught in the same building, and its first years have proved beyond question the wisdom of its promoters and the judgment of the authorities in providing for it only the best equipment and the best teachers. It stands to day as a memorial to the generous woman whose name it bears, and a tribute to the enterprise of the public-spirited citizens who made the beginning of industrial education in Newport, to the hearty support of the newspapers and to the kindly disposition and liberality of the taxpayers in making it a possibility. The success of its first years warrants the prediction that its future will be an unfailing benefit to the community."

About 1000 pupils are now receiving instruction in the various departments of this school.

Through the beneficence of the late Mrs. Rachel Harris the city of Woonsocket has recently established a manual training school in which upwards of 300 pupils receive regular instruction in wood carving or sloyd for the boys, and sewing for the girls. The enterprise is receiving the hearty support both of the school officers and teachers, and promises the very best of results. Mr. F. E. McFee, the superintendent, reports that "the value of the instruction to the pupil is simply inestimable." "It is the enlargement of the whole life of those who receive it. The manual exercise promotes a completeness and largeness not otherwise obtainable."

I am glad to know that the School Committee of Pawtucket have recently been considering the matter before us, and I confidently expect their favorable action in regard thereto. Our efficient Superintendent, who, it is only just to say, stands in the front rank of New England educators, is actively in sympathy with the movement, and has already taken the initiative for the establishment of the system, and I earnestly bespeak for him the hearty coöperation of our citizens. No public movement of the present day, in my judgment, is so richly fraught with undoubted benefit and advantage to the great masses of the American people, and hence to the government itself, as the one we are now considering.

It is very important in this discussion that the distinctive character and purposes of manual training, as herein advocated, should be clearly borne in mind. And I desire it to be distinctly

stated that its purpose is not to teach particular trades. Industrial schools or manual training schools are not trade schools. If a father desires his son to become a painter, a carpenter, a mason, an architect or an artizan, it is his business to furnish him with the facilities for obtaining the specific information and training requisite for the chosen trade; for the State is under no more obligation to teach a man a trade than it is to teach him a profession. It is under obligation, however, to give him that sort of elementary training which shall enable him to make the most of himself, not primarily for his own sake, but because he is thus made capable of becoming the most useful as a unit of society. The manual training school educates boys, not to become mechanics necessarily, but to become men of intelligence and skill. It educates them so that they may have open to them a wider field of employment than they could have in any other way. It educates them so that they may have open to them all employments.

As said in a late report of the Baltimore Polytechnic Institute, which is a part of the public school system of that city:

"The institute does not teach trades. Its aim is more comprehensive: it lays the foundation for many trades, and at the same time recognizes the value of intellectual discipline. It is not assumed that every boy who enters the institute will be a mechanic. Some will find that they have no taste for manual arts, and will turn into other paths—law, medicine or literature. Some who develop both natural skill and strong intellectual powers will push on through the Polytechnic Institute into the higher realms of professional life, and become architects, draughtsmen, electricians, engineers or scientists. Others will find their greatest usefulness and happiness in some branch of mechanical work, into which they will readily step when they leave the institute. All will gain intellectually by their experience in contact with things. The general result will be an increasing interest in manufacturing pursuits, shrewder merchants, more intelligent mechanics, more skillful manufacturers, better lawyers, more competent physicians and more useful citizens."

I need hardly remind you, in this connection, that ours is an age of intense activity. The struggle for success and superiority in all the walks of life is most vigorous and persistent. Competition is sharp, and even bitter sometimes; and in order that one may not become discouraged and overborne in the battle of life—in other words, in order that he may have a fair chance in the race, he must be equipped with the whole armor of a complete and fully up-to-date manhood. The education which our fathers possessed sufficed for their time. but is wholly inadequate for ours. The stage coach and the weekly post were quite satisfactory two generations ago, but nothing short of the limited express and

the morning and evening newspaper, still damp from the lightning printing press, will satisfy us now. As well might a general expect to win a battle with the use of the powderhorns and flintlocks of our revolutionary soldiers, as for a man now to expect to win in the battle of economic, social, political and professional life with only the facilities therefor which our forefathers had. Onward, and ever onward, then, must be our motto, if we would fulfill the high destiny for which we were created and plant our banner upon the highest peak of human achievement.

I submit that the testimony which I have offered, regardless of very much more that might be added, coming from all parts of our country, and from men who have made our public school system a special study, proves beyond all reasonable doubt, first, that manual training is both practicable and highly useful; and, second, that the trend of public opinion is decidedly favorable to its introduction in connection with, and as part of the curriculum of our public schools; not that it should supplant the regular course of instruction now in vogue, but that it should be made supplementary thereto.

I am bound in fairness to admit that the opinion as yet is by no means unanimous on the part of educators and thinking men in favor of the system which I earnestly advocate, there being a very respectable number who as yet oppose the change. But what I do say is that the great majority of those who have investigated the subject carefully are very decidedly favorable thereto, and that the system is very rapidly growing in the public estimation throughout the entire country.

Can there be any question in Rhode Island, whose cities and large towns constitute one vast hive of industry, where the mechanic arts form the employment of the great majority of our population, that manual training should be taught in our public schools?

Let the honest, hard-working wage-earners answer this important question by their voice and their vote.

Let the parents, who are anxious that their children should grow up to be strong, vigorous, well-rounded men and women, capable of earning an honest and comfortable living, and becoming useful members of society, answer this question by exerting their influence in favor of this important adjunct to our public school system.

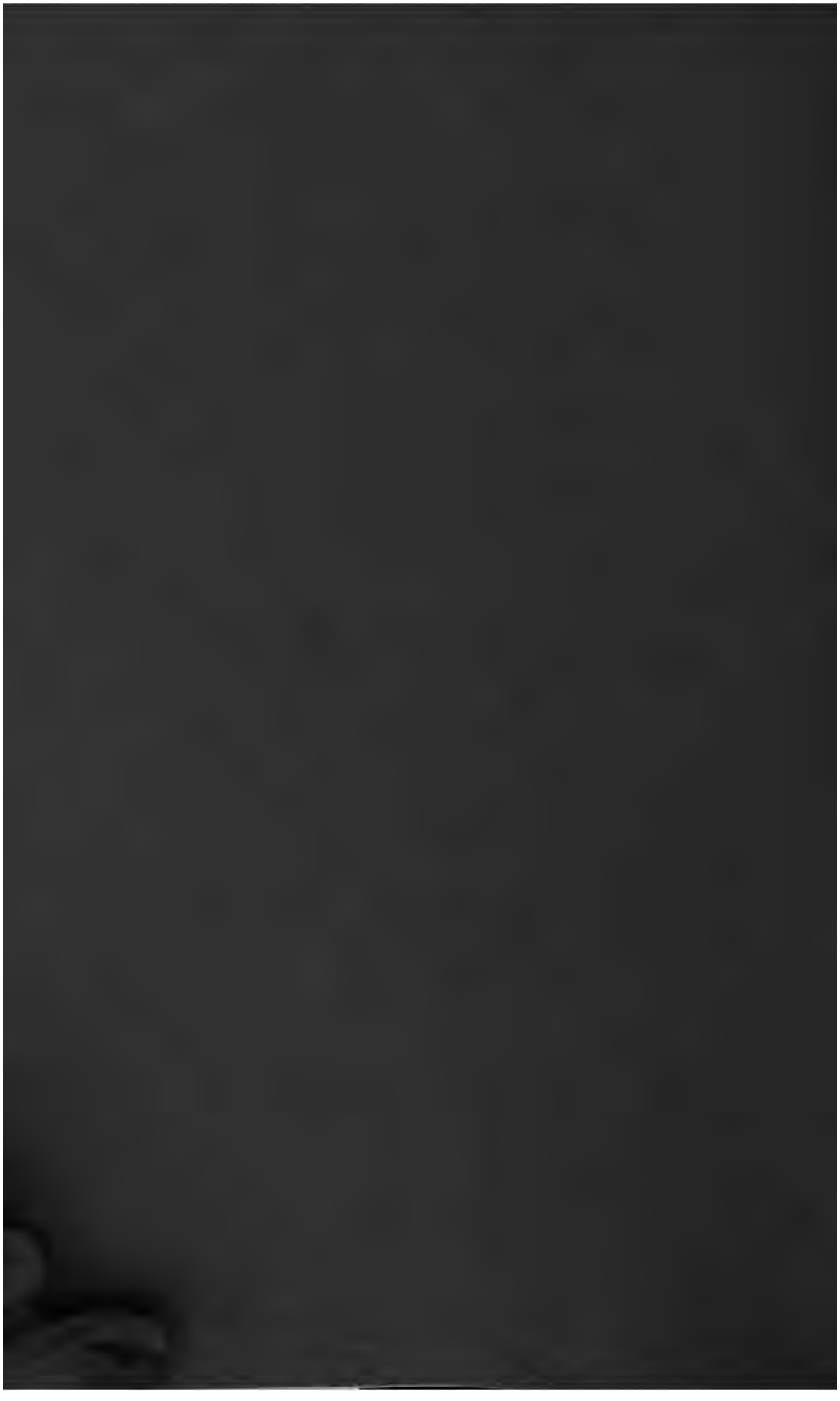
What would conduce more to the permanent prosperity and growth of our own pre-eminently industrious community, with its hundreds of thousands of ever busy spindles, its celebrated machine shops, its wood turning and box making establishments, its building enterprises, its electric plant, and its numerous other varied industries, than that the rising generation, who are soon to

take the places of their fathers and mothers in sustaining, improving and carrying on these useful and profitable enterprises, should have, in connection with, and as a part of their public school education, at least an elementary training in the mechanic arts? With the addition of this improvement in our public schools, there would soon come to be an increase in vigor, courage and manliness of the individual citizen instructed therein; manual labor would be dignified and honored as its importance justly demands, thrift and industry would more universally prevail, while indolence, sloth and laziness would be most emphatically condemned.

Let schoolhouses then, the fortresses of American liberty and independence, be everywhere multiplied. Let them be well and thoroughly equipped with the best teachers, the best superintendents and the best appliances obtainable, and let the instruction imparted be such as shall tend to fully develop the mental, moral and physical powers of the rising generations.

Finally. The State needs *men*; courageous, intelligent, all-round *men*; men of well trained minds and well trained hands; men who know how to think and also to do; and the State *must have* such men, and have them in abundance, if it is to be perpetuated, and is to accomplish the grand purposes of its wise and patriotic founders. We look to our public schools as the principal institution for the production of such men. If this institution fails to furnish them, there is little hope for the future of this great and boasted republic. If, however, it shall fulfill its high destiny, as I believe it will, there need be no fears, either from foes within or foes without, for there will be raised up a race of men so virtuous, so intelligent, so invincible, *so godlike*, that our Nation shall command, and be easily able to maintain, not only the dignified respect, but the profound admiration of all mankind.

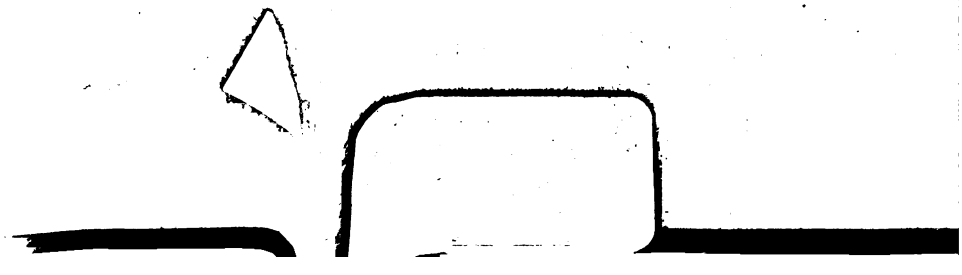




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